

Bulletin

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University of Toronto

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COU recommendations become IDEA Corp.

President James Ham says he's greatly heartened by the Ontario government's recently announced proposal to create and finance a corporation responsible for promoting industrial research and development and for fostering technological training programs to increase the supply of skilled manpower. The proposed body is to be called the IDEA Corporation (Innovative Development for Employment Advancement).

"Of course there's bound to be a certain scepticism about a major government announcement made in the context of an election," says President Ham, "but if this commitment is fulfilled, it will be an important initiative, reflecting the significance of universities as partners with industry and government."

The President says the concept conforms with recommendations made a year ago by a Council of Ontario Universities (COU) committee he chaired. That COU brief urged the government to recognize the necessity for Ontario to live "by its wits as well as its resources".

"Given the dramatic uncertainties facing us as we begin the decade of the 80s, with pressing problems in the economy, energy, health, the environment, national affairs and international relations," said the brief, "the impor-

tance of research has never been greater... The universities as institutions have both the human and physical resources to support the research endeavours."

The brief noted that almost 40 percent of Canadian university capacity for research is located in Ontario, but that Ontario lagged behind such provinces as Quebec, Saskatchewan, Alberta and British Columbia in coordinating university research activity with provincial objectives and in making substantial amounts of money available for research.

To be based in Toronto, the IDEA Corporation will be governed by a board of directors representing the corporate, academic, governmental research and labour communities. It will be empowered to:

- purchase patents and license rights
- enter into joint R & D ventures with the private sector
- monitor and evaluate industrial R & D in Ontario
- coordinate and fund proposed research centres related to auto parts technology, microelectronics development, computer-aided design and manufacturing and robotics, biotechnology and toxicology.

An anticipated side-effect is that the corporation would improve the capacity

of universities to respond to the skill requirements of high technology industries by fostering the interchange of staff among universities, industry and the new research centres.

To further enhance the role played by universities, additional funding will be provided to purchase modern research equipment for engineering and science. Also, as an added incentive, researchers awarded new or expanded research contracts from industry or government will receive supplementary funding to permit the hiring of technicians and the purchase of equipment.

New funds will also be made available to universities which develop joint programs with the public and private sectors to upgrade management skills.

The IDEA Corporation is part of a province-wide industrial expansion program of which the cornerstone will be the Board of Industrial Leadership and Development (BILD). The government has announced that \$1.5 billion will be channelled into BILD programs over the next five years. The plan calls for funding on the federal, provincial and local levels, as well as from the private sector.

UTFA, administration closer together in salary talks though mediator's report likely

Mediation talks between the U of T Faculty Association (UTFA) and the administration have not produced a settlement but they have brought the two parties closer together on the issue of salary adjustments for 1981-82.

UTFA had been seeking a 17.1 percent increase and the administration had offered 6.8 percent. During mediation, UTFA reduced its demand to an 11.4 percent increase and the administration indicated it might be willing to raise its offer to an increase of between nine and 10 percent.

On the issue of benefits, the administration held the line on its final offer before mediation while UTFA agreed to modify some of its demands.

"We're still hoping a settlement might occur," says Harry Eastman, vice-president (research and planning) and registrar, "though we have no great expectation that it will."

The most probable next step is that mediator Innis Christie will provide the Governing Council with his final report, setting out recommended terms of settlement. Deadline for submission of the mediator's report is Feb. 15.

If approved by Governing Council, the mediator's recommendations are binding on the faculty association.

In its 75-page brief to the mediator, UTFA criticizes the administration for failing to "provide a fair presentation of the resources available" and suggests there is evidence that the University is "an extraordinarily wealthy institution with more than enough funds to begin the attempt to pay its faculty and librarians salaries that more closely approximate their worth".

If the salary scales continue to lag

behind those of other comparable groups in society, the brief warned, demoralization will increase, there will be an exodus of talented individuals "and the quality of new recruits must inevitably deteriorate".

The brief charges that the University's budgets consistently underestimate operating results. For example, in the current operating fund for the 1980 fiscal year, a loss of \$124,972 was budgeted, whereas the actual result was an excess of \$3,494,000, says the brief.

UTFA suggests that the administration's "tendency to underestimate future income" might have something to do with its "poor record of forecasting enrolments". For example, says the brief, the target for 1980-81 was 37,834.5 full-time equivalents (FTE), whereas the actual enrolment was 38,884.1 FTE, an underestimation of 2.8 percent, which "strongly suggests that the University will enjoy additional unexpected formula income in 1981-82".

When UTFA requested a copy of Wood Gundy reports on pension fund performance, the brief charges the administration's response was "patronizing, paternalistic and insulting".

The brief offers a detailed criticism of the administration's costing of the UTFA request for family access to University athletic facilities, concluding that the alleged out-of-pocket costs are "devoid of credibility" serving "only to hinder the negotiation process".

Finally, the brief suggests that the University could come up with between four and five million dollars to help meet UTFA's salary demands through deficit financing.

Half library's backlog brieflisted 'It's not perfect but at least there's access to the books'

There are about 20,000 books stored in boxes in the Robart's Library. No one has been able to use them because there isn't enough money in the budget to hire the staff to catalogue them properly.

But in months to come, this backlog of unclassified books will find its way on to the shelves and into the hands of researchers.

The University is among the first in North America to combat tight finances and inadequate staff by introducing a shortened system of cataloguing that should ensure new library acquisitions are indexed with minimal delay.

It's called brieflisting. No one says it's the perfect solution. Stack browsing will be hampered because brieflisted books, although stacked close to their main subject divisions, are shelved apart from fully-catalogued materials. And researchers must know the title and author they seek, since the system doesn't allow for classification according to subject.

"At best, it will take a bit of searching. The main argument for brieflisting is that at least there will be access to the books," says Professor Frank Watt, chairman of the subcommittee on brieflisting of the Advisory Committee on the University of Toronto Library System.

And, of course, it is less expensive. Watt says a full cataloguing by a librarian costs about \$28 a title. Cataloguing using ready-made Library of Congress, National Library or other Canadian library records costs about \$14. Brieflisting — a straightforward listing of title and author — costs just \$2.80 a title.

Despite a decline in acquisitions, the library's cataloguing capacity has not kept pace with the annual intake of new materials, says Watt. By 1980, the uncatalogued backlog was approaching 50,000 titles and building at a rate of about 6,500 a year. Raising the cataloguing capacity to match the rate of acquisitions would require an increase in staff — estimated in 1980 at about 14 positions

Continued on Page 2

Governing Council by-election nominations open

Nominations opened Feb. 4 for the election of a representative of Teaching Staff Constituency IB (Scarborough and Erindale Colleges) to Governing Council. The successful candidate will hold office until June 30, 1982.

This by-election is conducted by the Governing Council under the authority of the *University of Toronto Act, 1971 as amended*.

Teaching Staff Constituency IB means the employees of the University, University College, the constituent colleges and the arts and science faculties of the federated universities who hold the academic rank of professor, associate professor, assistant professor, full-time lecturer or part-

time lecturer, unless such part-time lecturer is registered as a student, or who hold any other rank created by the Governing Council and designated by it as an academic rank for the purposes of this clause. The Governing Council has designated the categories of tutor and senior tutor as equivalent to that of lecturer for the Governing Council elections. (Lecturer includes associates and clinical teachers in the Faculty of Medicine and associates in the Faculty of Dentistry.)

Constituency IB — 1 seat — all teaching staff members who hold their major appointments at Scarborough or Erindale Colleges.

By-election schedule

Nominations open
Nominations close
Announcement of irregular nominations
Filing of corrected papers
Announcement of candidates
Filing of intention to appeal
Appeals completed
Announcement of additional candidates
Mailing of ballot papers
Close of election
Announcement of results
Deadline for receipt of election expenses
Deadline for recount request

Monday, Feb. 4, 9 a.m.
Friday, Feb. 13, 12 noon
Monday, Feb. 23, 12 noon
Tuesday, Feb. 24, 3 p.m.
Wednesday, Feb. 25, 12 noon
Wednesday, Feb. 25, 5 p.m.
Friday, Feb. 27, 5 p.m.
Monday, March 2, 12 noon
Friday, March 20
Thursday, April 2, 12 noon
Wednesday, April 8
Wednesday, April 15
Wednesday, April 22

Specifications of procedures and regulations are contained in the Election Guidelines 1981, as approved by the Governing Council. Copies of the Guidelines and

nomination forms are available at the Governing Council Secretariat, Room 106, Simcoe Hall. Enquiries may be directed to Ross Smith at 978-6576.

Library backlog Continued from Page 1

and \$200,000 in salaries — and a continued commitment of funding to cataloguing.

Brieflisting seemed the least expensive and most acceptable solution. Since the U of T library system started brieflisting books last spring, about half the existing backlog of unshelved books has been eliminated.

"It was a way of reducing the uncatalogued backlog that has accumulated to date and of preventing the library's annual acquisitions from exceeding its cataloguing capacity in the future," Watt says in his report to the library system advisory committee. "It was believed to be the most practicable and least damaging alternative. It is intended as a permanent, not a temporary, solution to the problem. Titles so listed will not be fully catalogued in the future. A similar conclusion was arrived at independently by a number of other major North American libraries, notably the Library of Congress which has simultaneously embarked on a program of minimal cataloguing for selected titles."

Brieflisted materials appear in the catalogue with the word "BRIEF", preceded by the first two or three letters of the most appropriate Library of Congress subject classification and followed by sequential numbers according to the order of cataloguing.

The degree of brieflisting varies from one language to another but seems to be highest in Russian, Arabic, Hebrew, Spanish and Portuguese. The 1,035 titles in English which were brieflisted between May and December last year accounted for about four percent of the total.

Library acquisitions in Roman and Slavic alphabets are checked on arrival against machine-readable ready-made cataloguing information. For about 65 percent of all titles acquired, such cataloguing is available, usually within three to six months. (Eventually such information is found for 80 percent of English material and 70 percent of material in French and German.) The remaining 35 percent, most of it non-Roman alphabet material, becomes eligible for original cataloguing or brieflisting. Library staff direct high priority material for original cataloguing and route the remaining materials for brieflisting.

In his report, Watt concludes that "the chief danger of the brieflisting system is that its very success will encourage an

increasing use of it and a corresponding decline in original full cataloguing. Indeed, since in future some of the ready-made cataloguing derived from the Library of Congress will be its version of brieflisting, and since in any case, the use of ready-made cataloguing itself is much more expensive than brieflisting, there is theoretically no limit to the extent to which full cataloguing of the library's collections might be reduced through financial pressures.

"Obviously, the library is the first defender of reasonable standards for acquisition and accessibility, and no doubt will insist that at least minimal standards are always maintained. However, the library's financial resources are determined by the budgetary priorities of the University as a whole. In order to make fair decisions, the University community must be able to understand the implications of library policy and practice, all the more so since — as is the case for brieflisting — the consequences are long-term, significant and difficult for the ordinary user to recognize and evaluate in the early stages."

The three-member subcommittee has recommended that the brieflisting project be evaluated in a report from the chief librarian to the advisory committee this fall and that reports be presented annually after that, so that the extent to which brieflisting is used can be regularly assessed.

It is also recommended that in the spring of 1982, departmental, divisional and school library committees and representatives from the libraries in the Council of Campus Libraries submit their responses to brieflisting to the chairman of the library system advisory committee.

Length of time to PhD

A committee has been appointed by the council of the School of Graduate Studies to survey, across the four divisions of the school, the length of time required to complete the PhD and to determine, if possible, the factors which influence this in different departments. The committee has also been commissioned to examine the relationship between graduate student support and the length of time to complete the PhD.

The membership of the committee is: Professors R.H. Painter (*chairman*), Department of Biochemistry (8740); Denton Fox, Department of English (3197); Frances Burton, Department of Anthropology (5416); H.W. Smith, Department of Electrical Engineering (6341); and R.A. Liversage, Department of Zoology (3500); Susan Lawrence, Institute for History and Philosophy of Science and Technology (6280); Michael Schiff, Institute of Immunology (4119); and Marjorie Kennedy, senior executive officer, School of Graduate Studies (*secretary*) (5259).

Any faculty, students or alumni of the school wishing to bring information to the attention of the committee or wanting to present a written brief to the committee is invited to get in touch with any member of the committee, or write care of M. Kennedy, School of Graduate Studies, 65 St. George St. (978-5259) before March 17.

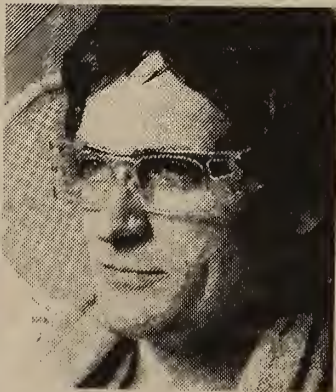
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Arts and science admission requirements

The final word — we hope

Grade 13 students who cannot fulfil the new arts and science admission requirements will be able to appeal to the Office of Admissions for exemption.

A notice sent to secondary school officials last week advises that some students, through no fault of their own, will be unable to meet the requirements. Students who have accelerated may already have completed courses in subjects now declared unacceptable or may have made academic decisions prior to 1981 that will make it difficult or impossible to meet the new rules, the notice says.

"It is the intention of the University to provide protection for these students."

The subjects rejected for admission to arts and science programs are data processing, marketing and merchandising, secretarial practice, technological studies and other business studies.

"It has always been clearly recognized by the University of Toronto that planning an academic program for university-bound students in secondary schools is a four or five year process," director of admissions William Kent advised school officials and guidance counsellors in his Jan. 23 letter. He adds that appeals will be dealt with on an "individual basis to the satisfaction of everyone, because our studies indicate that the number of students who will be affected in a substantial way as a result of the changes in the admission requirements is very small.

"The purpose of the review of the admission requirements has been to provide direction to schools and students as to the most appropriate preparation for arts and science studies at the University of Toronto. The new requirements emphasize the need for breadth of academic preparation rather than over-specialization in grade 13.

"I do regret that it was not possible to announce the entire package of new admission requirements for 1982 at an earlier date, especially since I am sure that this would have avoided some of the misunderstanding and confusion that has arisen," he said in his letter.

For purposes of admission to arts and science programs, the new policy categorizes grade 13 subjects into six groups.

Group A includes English, anglais or English as a second language.

Group B includes languages other than English.

Group C is the mathematics category and covers algebra, calculus and relations and functions and, for students providing more than one mathematics credit, applied mathematics and a number of pure mathematics courses.

Group D is the science category and encompasses biology, chemistry, environmental science, earth science, general science and physics.

Group E, the other humanities and social sciences category, covers classical studies, Canadian studies, economic reasoning, geography, history, politics, religion, other social sciences and music.

Group F includes subjects that will be reviewed to determine whether they can be placed in Groups A through E or whether they should be declared unacceptable. They are multidisciplinary studies, family studies, law, visual arts, dramatic arts, physical and health education, screen education, other arts studies and accounting.

Students entering arts and science in 1982 must present at least six grade 13 credits distributed as follows: at least one credit from group A, and additional grade 13 credits selected from at least two of groups B through E and including at least one credit in either group B or group C. Students cannot offer more than two credits in any subject except in mathematics where the maximum has been set at three credits.

While group F subjects are under review, one credit will be accepted from this group provided all the other admissions criteria have been met.

Copies of the complete official University announcement regarding the new policy are available from the Office of Admissions.

Can mammography reduce breast cancer deaths?

The National Cancer Institute of Canada (NCIC) is asking for volunteers for a five-year study to find out whether mass mammography screening reduces the death rate from breast cancer.

The \$9.5 million study, which began last year, will involve 90,000 Canadian women between the ages of 40 and 59, half of whom will be randomly selected to receive annual breast X-rays over the next five years to identify early signs of cancer. The remaining women will have annual physicals if they are over 50, and fill out questionnaires each year if they are under 50.

Twelve tumours have been discovered and treated in the 4,500 Toronto volunteers who have been screened at Mount Sinai Hospital over the past year. Another four cases have been identified at the Quebec screening clinic where 1,600 women have been examined since the study began there last August.

Breast cancer is the commonest form of cancer in women, and the leading cause of death in women aged 35 to 54. Research has not resulted in reduced mortality from the disease, and there is no proven approach to prevention. The NCIC is therefore turning its sights to improved methods of early identification, says Dr. Andrew Miller, head of the NCIC epidemiology unit at the University, and director of the screening study.

Mammography is the most expensive approach to early detection — currently it costs about \$30 for each woman tested — and its benefits have never been clearly documented, Miller says.

A study by the Health Insurance Plan of New York that started in 1963 showed that mammography and clinical examinations resulted in a 40 percent reduction in mortality from breast cancer in women over 50, but no such improvement was seen in women under 50.

More recently, at 27 breast cancer detection projects sponsored by the American Cancer Society and the US National Cancer Institute, the results in younger women were more encouraging, possibly because mammography techno-

logy has improved since the earlier study and because the need for surgical biopsy of certain lesions detectable by mammography has become more widely appreciated. Based on figures derived from these detection projects, mammography screening of healthy women may result in a decreased mortality rate of up to 50 percent in both age groups, says Dr. Miller.

In the past, concern has been expressed that mass screening programs would subject healthy women to a risk of cancer caused by radiation that might outweigh the benefits of the diagnostic X-ray.

Miller says the low dose of radiation now used in mammography is significantly less than in the past. Over the course of the five-year study, the total dosage received will be slightly less than the dose received in a single breast X-ray five years ago.

The Canadian study will attempt to discover whether mammography in women of both age groups reduces the death rate enough to warrant mass screening. It is sponsored by the NCIC, the Canadian Cancer Society, Health & Welfare Canada, the Ontario Ministry of Health, and the Quebec social affairs ministry.

At screening centres across the country, participants complete a questionnaire and sign a consent form explaining the low radiation risk involved. All receive a physical examination and are taught breast self-examination.

Any abnormalities that appear at any time over the five years will be reported to the women's physicians.

About 4,500 Toronto women have already agreed to participate in the project and Dr. Miller says he hopes 15,000 area women will eventually agree to volunteer for the study. Anyone between the ages of 40 and 59 who has never had breast cancer and has not received mammography in the past year can participate in the study. The number to call is 596-3972.

Geology assembles team of 13 specialists

for new approach to oil exploration studies

by Sarah Murdoch

A team of University geologists has received an \$85,000 grant to assist the Canadian petroleum industry in its search for potentially valuable oil sites.

The 13-member Basin Analysis group from the Department of Geology is the largest team from a Canadian university ever assembled to lend an interdisciplinary approach to the complicated business of oil exploration.

Project coordinator Professor Andrew Miall says it is probable that the University team will do research for oil concerns working in the Arctic Islands and the Grand Banks off the east coast.

"The generation of a petroleum pool is a very complicated process," he says. "Studying the generation, release, migration and trapping of the petroleum involves about five or six different specialties within geology. All the steps really should be studied simultaneously for any given pool to get the complete story, but this is very rarely done."

Some of the multinational oil companies have their own research groups, says Miall, but their work tends to be centred in the US. Further, it is frequently aimed at finding answers to

specific questions or solutions to problems as they arise. The result has been a piecemeal approach to geological inquiry in a field that has profound economic implications for Canada.

Traditionally, it has been the geophysicist who, through seismic soundings and other techniques, located petroleum pools in "anticlines", dome-like underground oil traps created by the folding and faulting of rocks over centuries. Today, says Miall, as the more clear-cut structures are exploited, oil concerns are paying increasing attention to the "subtle traps" of oil that have been sealed by variations in rock strata. The geophysicist is still of importance and, in fact, the group hopes to include one on the research team, but other geological disciplines are more and more frequently being called in to play a role in studying potential subtle traps, such as deltas and fossil reefs.

Reefs are composed of fossils which gradually dissolve, creating large voids that, following the necessary chemical and temperature changes, are eventually filled with oil. For example, the Leducoil field, the first large oil find in Alberta, was in a fossil reef. Similarly, as a delta advances out into the sea, the grains of

sand get smaller, the porosity of sediment diminishes, and the oil formed over centuries from marine nutrients is pushed into the still porous material at the mouth of the delta and protected by a seal of mud or other non-porous material.

Miall says that drilling in the Arctic Islands has revealed a number of large gas fields that the University's Basin Analysis group would like to study further.

"There's a tremendous interest in exploring for subtle traps in these fields. There are all sorts of ideas that have not yet been followed up in the Arctic," says Miall. Recent oil finds off the east coast of Canada are also in a preliminary stage of exploration, he says. "There have been some very exciting finds but there's a lot of basic exploration work still to be done and research on the materials already found."

The Basin Analysis project will bring together specialists who can provide the necessary research tools. There will be a specialist in plate tectonics, whose expertise lies in analyzing the crustal shell on which earth's land and water sit and making predictions on the long-term generation of sedimentary basins. A stratigrapher, a sedimentologist and

a structural geologist will work together to study the architecture of the site, while a petrologist and organic geochemist will analyze the history of the oil trap and its diagenesis, the physical and chemical changes that have occurred deep below the earth's surface over the centuries to form oil.

The one-year project, funded by a Natural Sciences & Engineering Research Council strategic grant, provides an excellent opportunity for the University scientists to pool their skills in order to make predictions on the quality of oil deposits and at the same time expand their collective knowledge of the field, says Miall. In addition, it represents a good opportunity for manpower training in a field that has a shortage of good geologists. The department has received about 25 applications, most of them from outside Canada, in response to advertisements for people interested in conducting research in the petroleum field.

NSERC hasn't promised funding beyond the first year, but the type of research envisioned requires a long-term commitment. Miall says the group hopes to receive a full three-year grant when it makes a further application in May.

Job Openings

Below is a partial list of job openings at the University: Interested applicants should read the Promotional Opportunity postings on their staff bulletin boards, or telephone the Personnel Office for further information. The number in brackets following the name of the department in the list indicates the personnel officer responsible. Please call: (1) Sylvia Holland, 978-6470; (2) Margaret Graham, 978-5468; (3) Jack Johnston, 978-4518; (4) Ann Sarsfield, 978-2112; (5) Barbara Marshall, 978-4834; (6) Bob Potvin, 978-4419.

Clerk II

(\$9,200 — 10,830 — 12,460)
Press (6)

Clerk Typist II

(\$9,200 — 10,830 — 12,460)
Fine Art (1), Preventive Medicine & Biostatistics (5), Social Work (5), Guidance Centre (4), Political Economy (1), University College (5)

Clerk Typist III

(\$10,110 — 11,920 — 13,730)
Rehabilitation Medicine (4), Continuing Medical Education (4), French (1), Botany (1), Zoology (1), Surgery, part-time (4)

Secretary I

(\$10,110 — 11,920 — 13,730)
Physical Plant (6), Nursing (5), Ophthalmology (4), Computing Services (3), Education (4), Library Science (2), Geology (1), Law (6), Physics (1)

Secretary II

(\$11,150 — 13,130 — 15,110)
Administrative Services (12), Chemistry (1), Governing Council (1)

Secretary III

(\$12,280 — 14,440 — 16,600)
Office of Director of Occupational Health & Safety (2), Medieval Studies (1), Conservatory (1)

Word Processing Supervisor

(\$12,280 — 14,440 — 16,600)
Central Services, Faculty of Medicine (4)

Laboratory Technician I

(\$11,150 — 13,130 — 15,110)
Forestry (5), Botany (1)

Laboratory Technician II

(\$13,660 — 16,070 — 18,480)
Dentistry (1)

Laboratory Technician III

(\$15,000 — 17,750 — 20,410)
Surgery (4)

Programmer II

(\$16,740 — 19,700 — 22,660)
Computing Services, two positions (3)

Programmer III

(\$20,630 — 24,280 — 27,930)
Computing Services, three positions (3), Student Record Services (3)

Programmer B

(\$14,977 — 17,196, Union)
Library Automation Systems (3)

Programmer C

(\$16,575 — 19,060, Union)
Library Automation Systems (3)

Programmer Analyst

(\$20,383 — 23,501)
Library Automation Systems (3)

Manager, Operations

(\$27,300 — 34,150 — 41,000)
Computing Services (3)

Engineering Officer II

(\$22,900 — 26,940 — 30,980)
Computing Services (3)

Engineering Technologist I

(\$12,950 — 15,250 — 17,550)
Biomedical Instrumentation Development Unit (5), Physical Plant (2), Erindale (4)

Clerk Typist I

(\$10,122 — 11,533, Union)
Science & Medicine Library (2)

Audio-visual Technician II

(\$11,150 — 13,130 — 15,110)
Media Centre (1)

Materials Officer

(\$11,150 — 13,130 — 15,110)
Central Services, Faculty of Medicine (4)

Library Technician III

(\$10,110 — 11,920 — 13,730)
Music (1)

Student Counsellor I

(\$13,660 — 16,070 — 18,480)
Student Awards (6)

Administrative Assistant I

(\$12,280 — 14,440 — 16,600)
Library Automation Systems (3)

Information Receptionist

(\$11,150 — 13,130 — 15,110)
Information Services (2)

Engineering Technologist I

(\$12,950 — 15,250 — 17,550)
Physics (1)

Research News

U of T Health Sciences Committee

The committee will again offer a summer undergraduate program and summer graduate support in 1981. Detailed information and application materials for both programs are available from ORA at 978-2163 or from the chairmen of medical departments. The deadline date for submissions is February 27.

Ontario Ministry of Energy Experience '81

The objective of the program is to provide summer job opportunities in energy-related projects. The "Energy Projects" program invites proposals from faculty members interested in selecting and supervising students to be employed in projects dealing with design problems and analytical studies related to energy conservation, supply and public awareness. Proposals may be from any discipline but will be of particular interest to those in the sciences, environmental studies or related areas.

The "Research and Development Summer Assistants" program invites proposals from faculty interested in providing promising students with a summer learning opportunity associated with an ongoing energy-related research and development project. Normally, funding for only one summer assistant per university is available, so that no more than two submissions from any one university will be considered by the ministry.

The maximum period of employment under both programs is 15 weeks.

The ministry's requirements are quite detailed and further information may be obtained from ORA at 978-2163. The deadline date for submissions is February 27.

Ontario Ministry of the Environment Experience '81

The purpose of the program is to provide employment for students during the coming summer for environmental projects run under the supervision of staff members from universities, community colleges and environmental organizations. The maximum length for projects is 11 weeks, plus one extra week for supervisors, but projects of shorter duration are encouraged. The maximum budget for any project is \$15,000, but because of an overall cut-back in funding, support costs must be kept to a minimum.

The ministry's requirements are quite detailed and further information may be obtained from ORA at 978-2163. The deadline date for submissions is February 27.

Royal College of Physicians & Surgeons of Canada Royal Canadian Legion Fellowships for Postgraduate Study in Geriatric Medicine

The purpose of the fellowships is to improve the quality of medical education and medical care with specific reference to geriatric medicine. It is hoped that the fellowships will make it possible for Canadian physicians whose career aspirations centre on this field to acquire knowledge, techniques and experience in a medical centre or centres other than his or her own in geriatric medicine and/or gerontology to enable them to teach upon return from the fellowship period.

The fellowships are open to physicians, preferably between the ages of 30 and 50, resident in Canada, who are either citizens or landed immigrants. Candidates must be licensed to practice medicine in one or more of the provinces and have certification in internal medicine from the Royal College of Physicians & Surgeons of Canada. The fellowships are for programs of one year's duration and carry a value of \$25,000 for the 12-month period.

The deadline date for submission is

February 28. For further information, telephone ORA at 978-2163.

Australian Institute of Nuclear Science & Engineering Research Fellowships

At the time of writing, minimal information was available on this program, although more has been requested. Candidates must have a PhD degree or the equivalent. The value of the award varies from \$14,000 to \$19,000 per annum. Awards may be made for up to two years. The deadline dates for submission are February 28 and August 31 of each year.

Juvenile Diabetes Foundation Research Grants

Grants are available for research relating to the cause, prevention and cure of diabetes and its complications. The deadline date for submissions is March 1. Application forms should be obtained directly from the sponsor: Grant Administrator, Juvenile Diabetes Foundation, 23 East 26th Street, New York, N.Y., 10010; telephone (212) 889-7575.

Upcoming Deadlines

Banting Research Foundation: March 1
Canadian Diabetic Association: March 15
Health & Welfare Canada, Health Services & Promotion Branch, National Health Research & Development Program (NHRDP):

[Applicants are reminded that the following are the only deadline dates in effect for 1981 for the submission of new applications.]

Project proposals, including studies, research projects, preliminary development projects and demonstration projects projects: July 31

Visiting national health scientist awards, national health scientist awards, national health scholar awards, and postdoctoral fellowship awards: July 31

MSc fellowships and PhD fellowships: November 15

Formulation of proposals, conferences (symposium, workshop), and short-term studentships: anytime, with approval contingent on the availability of funds.

— The Cancer Research Society Inc.: Grants — February 15; fellowships — February 15

Crusade Against Leukemia: research grants — February 15

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Review committee for Centre for Study of Drama

A committee has been struck to review the Graduate Centre for the Study of Drama. Members of the review committee are: Professor E.A. McCulloch, assistant dean, SGS (*chairman*); Professor A.M. Leggatt, Department of English; Professor H.S. Noce, Department of Italian Studies; Professor Ann Saddlemeyer, Department of English; Professor Jeannette Savona, Department of French; Professor M.J. Valdes, Centre for Comparative Literature; Professor Heinz Wetzels and Joyda Rueggeberg, Department of German.

Comments or submissions on the centre are invited and should be directed to E.A. McCulloch, School of Graduate Studies, 65 St. George St. or to any other member of the committee by March 9.

UC's new dean of men

Scarborough College history professor Jonathan L. Pearl has been appointed dean of men and director of residences, University College.

Professor Pearl was an undergraduate at Lawrence College and took his PhD at Northwestern University. He has been at Scarborough since 1969 and his special field of interest is European history of the 17th century.

Chaplain sought for Trinity College

Trinity College is seeking a new chaplain from July 1981. The candidate should be an experienced parish priest, by preference, a graduate of Trinity or at least familiar with the college. The chaplain normally is resident in the college, responsible for ministry to the Trinity communities and musically able to continue the present high standards of the chapel services. Applications should be submitted by February 25. Further information is available from: The Provost, Trinity College, Toronto M5S 1H8.

Nominations invited for Alumni Faculty Award

The University of Toronto Alumni Association invites nominations for the sixth Alumni Faculty Award. Previous winners were Horace Krever (1975), the late Douglas Pimlott (1976), Louis Siminovich (1978), John Polanyi (1979), and Donald Chant (1980).

Selection will be based on: academic excellence, service to the University and contribution or service to the community.

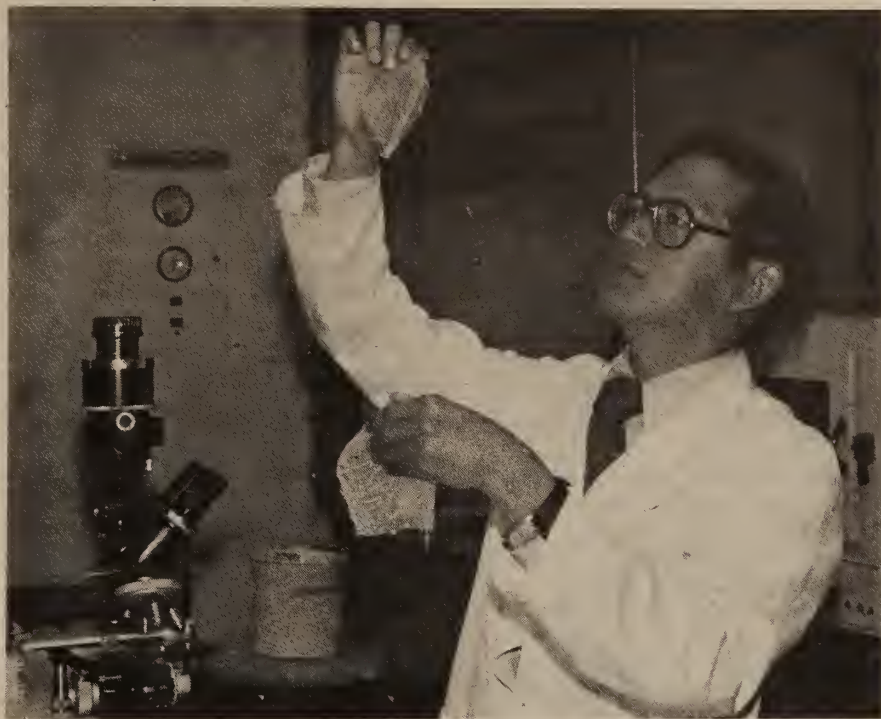
The selection committee is composed of the provost, the president of the U of T Faculty Association, the president of the Students' Administrative Council, the president of the Graduate Students' Union, the president of the Association of Part-time Undergraduate Students, and representatives of the University of Toronto Alumni Association.

Nominations are required by February 20 and should include a résumé documenting the qualifications of the nominee. The résumé should be drafted to reflect the three criteria of the award. It should be addressed to: The Chairman, Faculty Liaison Committee, Alumni House, 47 Willcocks St.

The award will be presented at a dinner in Hart House April 8.

Second skin

Wounds heal faster with 'skin'
developed at biomedical engineering



Professor Paul Wang and artificial skin membrane

by Pamela Cornell

A low-cost temporary skin substitute for use on running sores, abrasions or burns has been developed by Professor Paul Wang and technician Nimet Samji of the Institute of Biomedical Engineering.

About seven years ago, Prof. Wang began looking for a coating to protect deep wounds from bacteria whose toxins are lethal to human cells. He also wanted the protective substance to absorb excess fluids from the wound while preventing it from drying into a scab which would be painful to remove.

He evaluated several synthetic polymers — including silicone, polyurethane and vinyl — and found them unsuitable as temporary skin substitutes because many induce antibody production in mice. So he switched to a biological polymer — low molecular-weight dextran, known to be non-antigenic in humans and already used clinically as a plasma expander.

Wang evolved a chemical process that cross-links the water-soluble polysaccharide dextran with epichlorohydrin in a ratio of three to one. This forms a gel which is reinforced with fine cotton gauze to constitute a membrane about two millimetres thick.

"The flexible, slightly tacky hydrogel can conform to uneven contours without adhering too strongly or interfering with gas exchange," says Samji. "It absorbs excess fluids and causes essentially no

pain, bleeding, or tearing of delicate new tissue."

Existing dressings must be changed at least once a day because of inefficient absorption of fluids and the danger of infection. Not only can Wang's dressing be left in place for up to 30 days, but it also promotes more rapid and effective healing, reducing skin contraction around the wound by 85 to 95 percent to provide a better base for skin grafting.

Laboratory testing has been done on Wistar rats, whose skin physiology resembles man's in every respect except that it doesn't blister when burned. Clinical trials are now in progress, says Wang, and initial observations are confirming the results of his animal studies.

The gel used on rats was impregnated with penicillin G, time-released to provide continuous protection from infection. Wang is now experimenting with the controlled diffusion of other antibiotics.

Current cost of the gauze-reinforced gel membrane is about \$10 a square foot but mass production probably won't begin for another two or three years. Patent applications are being processed and Wang is negotiating licensing arrangements with companies in Great Britain, Europe and the U.S.

Meanwhile he says his gel works wonders on rat bites.

Search committee for Erindale principal

The President has appointed a search committee to recommend a principal of Erindale College for a term beginning July 1, 1981. Committee members are Vice-President and Provost D.W. Strangway (*chairman*); Stella Gamble, executive assistant to the provost (*secretary*); Erindale College professors Brian Corman, Department of English, W.R. Cummins, Department of Botany, R.B. Day, Department of Political Economy, L.J. Elmer, Department of Religious Studies, and Martin Moskovits, Department of Chemistry; Dean A.M. Kruger, Faculty of Arts & Science;

Dean John Leyerle, School of Graduate Studies; Principal R.S. Lockhart, New College; Professor Geoffrey Norris, Department of Geology; Erindale College students René Papin, president, Erindale College Student Union, Mark Steiman, and M.L. Stevens; Hans van Monsjou, president, Erindale College Alumni Association; and Tenny Reid, administrative staff, Erindale College (*assessor*).

The committee will welcome nominations and comments; these may be submitted to the chairman, room 219, Simcoe Hall, or to any member of the committee.

Press Notes

The Italian section of New York City used to be — and probably still is — called Liddliddly. Back then, before television, that was a joke. Whereas the man talking about cuddlefish, on educational (U.S.) television, wasn't joking. Cuddlefish indeed!

HALT

H.A.L.T.! Halt the Annihilation of the Letter T!

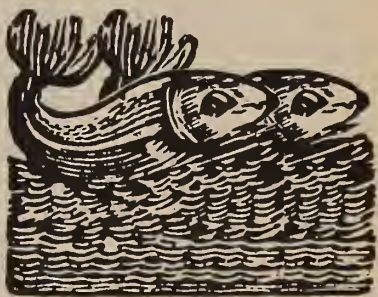
Annie Inflation probly starded id. Or the gennel denafris inven-ned by a denis. And Anna Perspirant.

Strengthen the garrison of ladership. North American commercials and commentators are puddng the English language into the Cuisinart, making it into a sludge, destroying its crispness, lucidity and flavour.

The Usonians are in the forefront. Cnajns, typically, are bringing up the rear, but they're ride in there, id's impordan to notice.

Piddy the newcomer to the language, eagerly trying to connect the words on the printed page with those heard. Innerdoosed on American television (yes, educational channel again), a Briddish Rider turns out to be a British writer. Usonians, with their innerstade highways and their distrust of clarity of speech, which they appear to confuse with ostentation, talk of mennal health, of chairidy, of meedings and cmiddees and plidical prioridies, of vidal innerests, advannages nod to be taken for gran-ned, of saddle-ites and all the effort that wen innoo them; they talk of ardis and riders, or hardache, even, and there is much discussion of ennerprise, about innerference with innernational innerests. And now Presden Carder's gone, and the world is wading for Reagan's uuderances.

But mid the gloom, sometimes it's so bad it's funny. For who among us, having heard of those cuddlefish, will not cherish the memory, perhaps giggle or grin about it in years to come?



What has all this to do with The Press, or Press Notes? Simply the grim message: keep those presses rolling, or all is lost. The precise printed word is being steam-rolled by the slovenly spoken word. Oil the printing presses. Cut down forests, stockpile paper and ink. Man the barricades! (Well, all right — *people* them, then.)

P.S. God any treasures you'd like to share? Send them: we'll see how the Press can cope with sedding this kind of stuff. (And who will proofread?)

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The effect of dollar devaluation on the University pension plan

A response and recommendations from the Presidential Advisory Committee on Pensions

The decreasing value of the dollar is a continuing problem for pensions. In 1929, the excellent retirement benefits granted to academic staff members by the Carnegie Allowances were seriously reduced by inflation and the University created the 1929 Academic Pension Plan, to fund the shortfall.

The present plan

The present plan instituted in 1966 also provided an adequate level of benefits for its time and following the Carnegie Allowances was based on near terminal salary. This was the case, no doubt, in part because that feature gave a better recognition of career advancement than the intervening plans it replaced, but also because of the inflation hedge provided to offset the slowly devaluing dollar. For the very low rates of dollar devaluation which obtained during the period just preceding 1966 (Appendix 1), the plan was a good one. It was instituted as an integral addendum to the then commencing Canada Pension Plan to provide a total retirement income of about 70 percent of near terminal salary after 40 years of service.

Dollar devaluation

If the dollar devaluation rate had remained at the level of less than two percent per annum characteristic of the period prior to the institution of the 1966 plan, the plan goal would have been achieved. As it turned out, unfortunately, the acceleration in dollar value decrease, which still continues, had its beginning just at the time of the institution of the plan (1965-67). The total effect has been to reduce the value of the September 1966 dollar to less than 40 cents in September 1980, if one accepts the Consumer Price Index as an inverse measure of dollar devaluation. A most striking feature of the data is the constancy of the inflationary trend from that day to this. In the 176 months, January 1966 to August 1980, there have been only seven months showing any increase in dollar value from the previous month. This continuing dollar devaluation has been accompanied by an acceleration in the magnitude of the monthly decrease from about 0.2 percent per month in 1966 to 0.9 percent in 1980.

No doubt the constantly decreasing dollar value was initially viewed as a temporary condition, likely to correct itself in 1967 or 1968. By 1972, however, a substantial number of persons were convinced of the high probability of continuing dollar devaluation. These and other concerns resulted in the formation of the Etkin Committee. Shortly after being constituted in 1974, the committee considered the continuing dollar devaluation and recommended "emergency" adjustments to the current pensions to offset it. In its second interim report, dated January 8, 1975, the Etkin Committee recommended "that all those presently in receipt of a pension that commenced prior to July 1, 1974 be granted an increase with effect from May 1, 1975 . . . The amount of the increase shall be four percent for each full year between July 1, 1971 or the commencement of the pension whichever is later, and June 30, 1974. A proportional increase shall be awarded for any fractional part of a year contained within that period". The committee further recommended that the University " . . . give consideration each year to adjusting the payments to pensioners in the light of the economic experience of the previous year (in particular the change in the cost-of-living) and the financial constraints on the University at that time . . . It is the intent of this recommendation that very serious consideration be given each year to providing for pensioners the same cost-of-living increase as is provided in the salary

increases for current employees". While neither of these recommendations was formally adopted by the University in its entirety, ex gratia augmentation of pensions were made retroactively to 1971, and over the past nine years there has been an annual augmentation averaging 1.4 points below the annual economic increase for continuing employees.

Today the evidence is overwhelmingly in favour of continuing dollar devaluation, even on a month to month basis. Since January 1972, a period of 104 months, there has been only one month in which the monthly change in dollar value has shown an increase: 0.2 cents in September 1978.

The effect of dollar devaluation on returns from investments

It is inevitable that the return on investment will reflect such high and certain dollar devaluation rates. Traditional numbers for constant dollar real interest rates are usually quoted as 1.5 to three percent per annum. A return on investment of 13.5 percent per annum, such as is now being offered on five-year certificates, reflects a prediction by financial markets of a continuing dollar devaluation of the order of 10-12 percent over the next five years. Pension fund returns reflect both the interest rate and the dollar devaluation effect in its surplus generation. "The challenge for pension fund managers is to earn three percent more than the rate of inflation." (Appendix 2)

The effect of dollar devaluation on pensions

The primary effect on our pension plan is to make it possible to purchase a fixed dollar pension at age 65 at a very low price for a fixed yearly dollar benefit. A pension of face value that would have cost \$100,000 at age 65 in 1966 can now be bought for much less than \$70,000 at age 65. Of course this cheaper pension will be paid out in rapidly devaluing dollars rather than the very slowly devaluing dollars of the period prior to 1966. Such pensions purchased in the future may well be even cheaper if dollar devaluation rates continue to increase.

One can still purchase for 100,000 1980 dollars a pension of the sort originally envisioned in 1966 in which the dollars used to pay pensioners devalue at a much lower rate. However, it may be regarded as proper to choose to purchase the lower cost pension made available by high dollar devaluation rates at less than 70,000 1980 dollars, and to regard the remainder as funds to be allocated elsewhere as part of the total financial resources of the University. This choice requires a major decision by this University.

The effect of dollar devaluation on salary averaging for final five years

In times of low dollar devaluation rates, the averaging of several years' salary must be undertaken without much loss. At the dollar devaluation rate of 1966 of about two percent, the reduction below the final year of a five-year average was less than four percent, and other considerations might govern the decision. At 10 percent per annum dollar devaluation and a five-year average the loss is 16.6 percent, which is a very serious matter. Even if a three-year average were to be used at 10 percent annual dollar devaluation, much greater reduction (8.8 percent) will result than was contemplated by five-year averaging in 1966.

The effect of dollar devaluation on Canada Pension Plan integration

The major effect of CPP integration is the generally unrecognized reduction in pension plan resources which results from dollar devaluation interacting with

CPP integration. As CPP coverage increased more rapidly than plan members' salaries (Appendix 3), the members' contribution rate to the plan fell from nearly five percent towards 2.5 percent. The average rate of payment now stands at 3.7 percent of salary. This widely unnoticed reduction in plan contribution conceals an even more serious reduction in plan income because the University's general fund contribution to the plan is always given as a multiple of the members' direct contribution. Thus the loss is not 1.3 percent (five percent minus 3.7 percent) of total salary but somewhat less than three percent (2.09 x 1.3 percent) of the salary budget each year. The proportion of income set aside for deferred consumption has thus been reduced, with the community unaware of the fact.

This shift in coverage from the University plan to CPP caused by the indexing of the CPP and the integration of CPP with the University plan results therefore in a substantial reduction in benefits from the University plan for all members. Of course, some benefits are received from CPP but they are not service related. As an example of this reduction in total CPP and University benefits, one plan member who retired in 1980 receives a CPP pension of \$2,933, but because of long service loses \$3,344 by integration — a net loss of \$411 annually. For members with less than 25 years' service, the CPP does provide slightly larger benefits than those lost under the University plan. This slight improvement over the University plan alone provided by both plans together as a result of a generous indexing of CPP is usually not well received by these short service, and hence small pension recipients. Many regard the CPP as a right of all Canadians and the severity of the integration is not widely understood.

As mentioned above, members with more than 25 years' service receive substantially lower total benefits from both plans (University and CPP) than they have been paying for under the University plan alone. The difficulty is now being accelerated by a further involuntary and automatic shift of a part of their coverage from the University plan to the CPP. This additional loss is very small, a maximum of about 80 cents a month per \$100 of coverage shifted, but it falls most heavily on low salary members with long service to the University. The good news is that for recent recipients CPP benefits have been more than fully indexed. This feature may be very valuable in the future but it does not, of course, remove the inequitable results of severe CPP integration interacting with large dollar devaluations.

The effect of dollar devaluation on interest rates paid to "leavers"

Since the "interest rate" for the plan was set at four percent, dollar devaluation causes a "loss" to those who leave the plan or to their heirs and assigns if deceased. The "loss" is relative to the return which might have been gained if the same amount of money had been wisely invested elsewhere. Still, it is calculated by many in that way, and some loss is certainly incurred. As a result there has been growing pressure for an increase in the interest rate.

Who is affected by dollar devaluation?

These changes in costs and benefits of the plan resulting from continuing dollar devaluation may be allocated among groups of people as gains or losses.

The major loser is the long-term pensioner who has not only lost but continues to lose at an increasing rate as dollar

devaluation accelerates. So obvious and grievous is this loss that it has been in part alleviated by ex gratia augmentation payments since 1970.

Employees not yet retired can expect to lose not only as a result of the five-year averaging process (16 percent), but also because they will receive a low-cost pension of the proper face value but much decreased real value (30 percent), and this will require ex gratia augmentation. They will suffer an additional loss (10 percent) because even ex gratia augmentation will not commence until the second year of retirement. Even though the continuing rapid devaluation of the dollar has made available a decaying pension at a cut-rate price the member might well ask for the more expensive constant-goods pension of the same nominal face value which is available at the original price on which the members' contributions are being paid.

Those who leave and the estates of those who die suffer a loss relative to what might have been gained by equal saving and wiser investment.

Dollar devaluation results in losses for all citizens, and all members of the University are in this general sense losers. However, the particular interaction of dollar devaluation with the pension plan provides an additional specific component of gain or loss to the general loss. The current winners in this specific sense are the general funds of the University and, through those funds, all of the continuing employees of the University.

The same transfer of value among members of the University community may be considered in terms of a single member of the community as he/she proceeds in time through a career to retirement. From this point of view dollar devaluation has forced on each of us a reduction in the ratio of delayed consumption (pension) to present consumption, by unseen and unforeseen interactions with features of the pension plan.

What should be done?

It is the opinion of your committee that the changes and the value transfers from delayed to present consumption brought about by dollar devaluation are not in general desirable changes for the members of the University plan. The 1966 plan, while perhaps subject to some improvements, is accepted by the committee as a good general base. *The overall recommendation is that the intent of the 1966 plan be restored by altering those features which enabled dollar devaluation to change the original intent of the plan.*

Detailed recommendations

The committee recommends as the first and major recommendation: 1) *That the pension plan be amended to provide that the pensions paid be augmented each year by an amount related to the economic increase for the continuing staff. The intent would be to provide augmentation at the same level relative to salaries as has been the practice for the past nine years.* This level is shown in the actuary's report (Appendix 4) to be an annual augmentation averaging 1.4 points below the annual economic adjustment for continuing employees. This is a slightly greater augmentation, 0.5 percent, than the actuary views as being covered by the actuarial assumptions for the funding of the present plan. In any event, the exact level is subject to negotiation. However, the relationship to salary rather than CPI is viewed by the committee as an important one. The level of augmentation established by past practice should not be reduced and increased augmentation is the subject of recommendation 4) below.

Continued on Page 10

UTFA hires PR firm to help lobby for better government funding

The U of T Faculty Association (UTFA) has hired a public relations firm to help it convince people that underfunding of universities by the Ontario government should be an important election issue.

Duckworth Associates launched the campaign Feb. 4 by organizing a press conference, complete with wine, cheese and open-faced shrimp sandwiches, at the UTFA offices.

"We want to try to get the politicians to understand that if the universities go down the tube, it hurts our society," said Professor John Fleming of the French department.

He and UTFA president Michael Finlayson then outlined their concerns to reporters from *Maclean's*, the *Toronto Star* and the campus press.

Students are dropping out of graduate school to take jobs in industry, where starting salaries are higher than a professor could expect to earn after several years on the job, said Fleming. Even if they completed their PhDs, there would be little chance of them finding permanent teaching positions in the University, he added.

"The best they could hope for would be a contractually-limited term appointment. Then they're people on the fringes, with few if any rights. They have no commitment to their department and no

stake in it. That has a debilitating effect on the departments and it's demoralizing for everyone involved."

UTFA wants the politicians to acknowledge that provincial grants to universities should be increased by about 15 percent for 1982-83. This year's increase was 10.1 percent.

Increases over the past three years, said Finlayson, have been eight, 5.4 and 3.75 percent, which he said amounted to a loss in real terms of between seven and eight percent. He added that academics' salaries are running 10 to 20 percent behind those of government-employed scientists, psychologists and education officers.

While voicing dissatisfaction with the Progressive Conservative government for its policies on university funding, UTFA spokesmen said it was too early to say if their association would endorse either the Liberals or the New Democratic Party.

Finlayson would not disclose what Duckworth Associates is being paid by UTFA but said he hoped the investment would result in a more effective lobbying effort than had been mounted by the Ontario Confederation of University Faculty Associations (OCUFA). UTFA withdrew from OCUFA three years ago.

University art committee to develop policy on art holdings

The President has announced the formation of a University Art Committee, as approved by Governing Council, to develop policy to assist the University and the divisions in the acquisition, preservation and protection of art holdings. In line with the recommended make-up of the committee, its membership is drawn largely from the divisions with major collections plus two experts from outside the University. The chairman is Rev. M.M. Sheehan of St. Michael's College, and the other members are: R.M.H. Alway, warden, Hart House; David Burnett, Art Gallery of Ontario; Professor Lora Carney, Scarborough College; President G.S. French, Victoria University; Dean B.L. van Ginkel, Faculty of Architecture & Landscape Architecture; Professor H.K. Lücke, Department of Fine Art; Patricia McKnight, Trinity College; Professor H.N. Milnes, University College; Elizabeth Phillimore, Royal Ontario

Museum; Lois Weir, Erindale College; and Professor R.P. Welsh, Department of Fine Art.

The committee has already begun its work and hopes to have recommendations before the President no later than the end of this academic year. Among the areas being explored are methods of updating and maintaining the inventory of art holdings prepared by Norma Grindal, ways of providing assistance on acquisitions, the development of guidelines on preservation, protection, and insurance for the collections, and the desirability of the appointment of a University curator.

Anyone wishing more information on the work of the committee can contact Michael Dafoe, secretary of the committee, at 978-4980.

In Memoriam

Barbara McLaren, dean, Faculty of Food Sciences, Jan. 20.

Born in High River, Alta., Professor McLaren received her bachelor's degree from the University of Alberta in 1930, her MSc at the University of Minnesota, and her PhD at the University of Wisconsin in 1947. She spent six years as associate professor at the State College of Washington then joined U of T in 1953 as professor and head of the household science department. In 1964, she was appointed dean of the newly created Faculty of Food Sciences, a position she held until 1970.

She developed a special protein-free food product for sufferers from abnormal metabolism and also a flour and bread product for celiac children — youngsters with a disease of the abdominal organs.

Professor McLaren was a leader in the movement to promote nutrition among the health sciences. She was among the first nutritionists who were associating undesirable food habits with now well known diseases of affluence.

Appointments

Recent academic appointments

The following academic appointments were confirmed at the Jan. 15 meeting of the Academic Affairs Committee:

Department of Electrical Engineering
Professor H.W. Smith, chairman, from July 1, 1981 to June 30, 1986

Department of Mechanical Engineering
Professor R.D. Venter, chairman, from July 1, 1981 to June 30, 1986

Department of Medical Genetics
Professor J.D. Friesen, chairman, from June 1, 1981 to June 30, 1986 and professor with tenure, from June 1, 1981

Faculty of Music
Professor Carl Morey, acting associate dean, from July 1, 1981 to June 30, 1982; Professor R.A. Falck, associate dean (second term), from July 1, 1982 to June 30, 1984; and Professors R.E. Chandler, Stephen Chenette, R.A. Falck and David Zafer, professor, from July 1, 1981

School of Continuing Studies
Duncan Green, professor, Faculty of Education and director, School of Continuing Studies, from July 1, 1981 to June 30, 1986 (*Bulletin*, Jan. 26)

Department of Industrial Engineering
Professor N.P. Moray, professor with tenure, from July 1, 1981

Faculty of Pharmacy
Professor D.J.W. Grant, professor with tenure, from July 1, 1981

Faculty of Law
Professors D.M. Beatty and E.J. Weinrib, professor, from July 1, 1981

Department of Medicine
Professor Colin Ramsay, professor, from Jan. 1, 1981

Division of Social Sciences, Scarborough College
Professor Ian Parker, associate professor with tenure, from July 1, 1981

Resignation
Graduate Centre for the Study of Drama
Professor M.J. Sidnell, resignation as director, effective June 30, 1981

Committee Highlights

The Planning & Resources Committee, at its meeting Jan. 19

- approved that the normal grant approval ceiling for research projects in the humanities and social sciences be increased from \$50,000 to \$100,000, and in the pure and applied sciences and health sciences, be increased from \$100,000 to \$200,000. The Research Board executive committee had recommended that funding limits for normal approvals be increased because of inflation

- recommended approval of the Policy on Office Automation. All requisitions for the lease or purchase of text-processing facilities for both academic and administrative sectors must be approved by the coordinator of University information systems. The policy is intended as a means to coordinate the acquisition and use of word processors at the University and provide divisions and offices with expert advice in the purchase and use of such equipment

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Herbert Marshall McLuhan:



Chancellor George Ignatieff, Claude Bissell, former U of T president, Reverend John Kelly, former president of St. Michael's, D. Carleton Williams, former president of the University of Western Ontario, and Corinne McLuhan, at the memorial tribute to Professor Marshall McLuhan held at Convocation Hall Jan. 27. On these two pages are the complete texts of the tributes.

One of the flippancies already in the McLuhan saga is the somewhat impertinent question: "What are you doin', Marshall McLuhan?" The world is well aware that he was doing something. There are different versions of just what that something was but there seems to be universal agreement that whatever it was, he was doing it differently. Marshall was not one to ignore the flippant; he was more likely to make it more flippant still. So, in the McLuhan spirit, I will add to the flippancy by adding two more questions, both flippant, and, with a touch of McLuhan irony, try to answer all three seriously. The additional questions are these: "How were you doin' what you were doin', Marshall McLuhan?" and "Why were you doin' what you were doin', Marshall McLuhan?"

I am well aware that Marshall would not answer any of the questions — not because he wasn't perfectly sure of the answers — but because he was convinced that serious questioners must first wrestle with the questions themselves. Involvement with the question is the necessary propaedeutic to the answer and even the route to the discovery of the obvious. Moreover, he was an iconoclast; an idol smasher living in an age when cracking barriers was the name of the game played on the frontiers. Breakthrough was the name of the game, and he played it to the hilt. Involvement and breakthrough, these were the McLuhan trademarks, and he was so wholly consumed by both that he had no time for answers to pedantic questions. Pedantry he would leave to the less agile; to fools like me who would rush into answers which angels might fear to give.

Marshall has been called a philosopher but the current connotation of that term is too left-hemisphere oriented to really suit him. He was more truly an artist, impatient of the ratiocinative; more like an eagle, even a mystic, whose spirit thrilled to soar to the heights, swoop over the breadths and plumb the depths. He did not simply see and hear, he glowed and resonated with the sight and sound. He could not abide a partial deployment of perceptual powers: senses, mind, heart, faith and inspiration all fused together as he plunged into the inexhaustible and ineffable mystery of human existence. His life was filled with awe, the launching pad of enquiry. He was overwhelmed with the wonder and the marvel of the universe. The bored, in his mind, were asleep. To be awake was to be in dialogue with reality, taught by it, fulfilled by it, constantly challenged by it. You miss reality if you

are simply a spectator. To be human is to be an involved participant in the drama of life — a sharer and a contributor. What was he doing? He was exploring on the turbulent sea of 20th century life, and he was doing it without the safeguard of a methodological rudder simply because he was in the process of trying to fashion an adequate one.

But, no man is an island. McLuhan had roots deep in the main intellectual and artistic currents of the past. He insisted that human perception changed with the invention of print but he insisted more on the abrupt change in perception happening in the age of acoustic space. He was like a voice in the wilderness proclaiming the dawn of a new age and, just a few months before his voice was silenced, he observed about all of us that "we are the primitives of an unknown culture". Marshall did not exist on the periphery and he was attempting to apply the techniques of the artist to communicate his vision of the general condition of contemporary man.

But, if he had roots in the distant past, his immediate artistic forbears were men of this century. From Chesterton, he learned to be open to and even relish paradox. Leavis, Eliot, Pound and Joyce opened to him the doors of perception on the poetic process and its role in adjusting the reader to the contemporary world.



Reverend John Kelly

"My study of the media," he said, "began and remains rooted in these men." It was from them that he learned to search for perceptual links rather than discrete experiences, links which were psychological, rather than logical, associative rather than linear or grammatical. While his perception and expression bloodlines are traceable to these men, one cannot but feel that the lines have been freshened by the McLuhan spirit brooding over them.

In his public life, he developed a personal mask — a style which served the double purpose of protecting him in his venturesome and even reckless explorations, and, at the same time, turning on (or off) the mind of his audience. Instead of presenting a complete and realistic picture as the old proscenium stage did, he consciously disturbed the routine sequence of language, producing jagged thoughts and jagged sentences, engaging the imagination of his audience by a jolt not unlike an electric shock. He intentionally left gaps in his expressions, making his audience fill them in. "The action", he was wont to say, "is in the interval." He tried to present a dramatic mirror of the complex processes of the mind at work, drawing attention not only to the words spoken but to the spaces between the words — stretches of silence, subliminal suggestions — all to ensure audience engagement. That is my version of how he was doing what he was doing.

And why was he doing it? If McLuhan

had a fear, it was the fear of fragmentation. The whole thrust of his educational effort was to make whole what tends to be discrete and disunified in most of us. Not only was he charting the "inner landscape" of the mind, but he was intent on restoring to unity the human person rent asunder, first by forces bred in the Renaissance and second, by the contemporary technological and cultural magnets of our own time. That's why he was doing what he was doing — trying to overcome breakdown by breakthrough.

In closing, I beg your indulgence in mentioning the most memorable instance I know of the McLuhan art. It occurred about 10 years ago when he was on a panel with W.H. Auden, and the subject under discussion was the contemporary theatre. He said, to a startled Auden and an equally startled audience, "The Sacrifice of the Mass is the greatest form of theatre possible and the one in which the audience is necessarily participant — in which there is no audience". That statement is loaded with orthodox theology but spoken like an artist. It may well be the greatest statement McLuhan ever made and it is so perfect that I would dishonour his memory by offering comment. I only wish I could have said it. It was unrehearsed, spontaneous, brilliant: one sentence about which libraries could be and have been written. It was quintessential McLuhan, total involvement and ultimate breakthrough.

— Reverend John Kelly

Marshall McLuhan, who questioned the primacy of the book in our electronic society, wrote many books, several of which are essential for understanding the nature of the world in which we live. But, like Harold Innis, his bias was towards the oral both in theoretical and practical terms; and in memory I see him always in a group of people, relaxed, dominant in an easy, unaggressive way, and I hear his voice, modulated, North American with some faint Cambridge echoes, with a gentle but firm persistence persuading us to enter the spacious room of his ideas. I first met Marshall in such surroundings, shortly after the war, when we were both recent members of the English department, and, in our domestic lives, were neighbours on the campus. He and Corinne, who brought with her to these northern climes the warmth and beauty and high courtesy of the old south, loved to entertain. Gatherings at the McLuhan home were relaxed symposia, introduced and led by Marshall: the subjects emerged naturally from the conversation, and ranged boldly across the whole sweep of the mental heavens, from the symbolism of the motor car (he was then working on that modern *Tale of a Tub*, *The Mechanical Bride*) to T.S. Eliot's theory of the auditory imagination. His mind moved with ease from subject to subject; he was confident and unruffled, with the assurance of a man who had thought deeply and widely on these matters and believed that he had reached sound conclusions.

The McLuhan of the 60s and 70s — the international figure, the most widely known Canadian in our time — was unchanged. The symposia had widened and had taken on a more formal structure, but the essentials remained — spontaneity, dizzy leaps from subject to subject and from area to area, with Marshall probing, questioning, speculating, enunciating. Even telephone conversations with Marshall would turn into miniature symposia. He had a habit of calling me in the morning (I'm sure many others could tell the same story) often at a time when most of us are just beginning to grope

our way into consciousness. There would be no ritual introduction, no opportunity to exchange pleasantries, no academic or domestic gossip. Marshall would begin with his most recent "probe". "By the way, did you know that the North American goes out to be alone and stays in to be social, and that, for the European, it's the exact reverse." Well, I didn't know, and I would wait for the explanation that was patiently and confidently given.

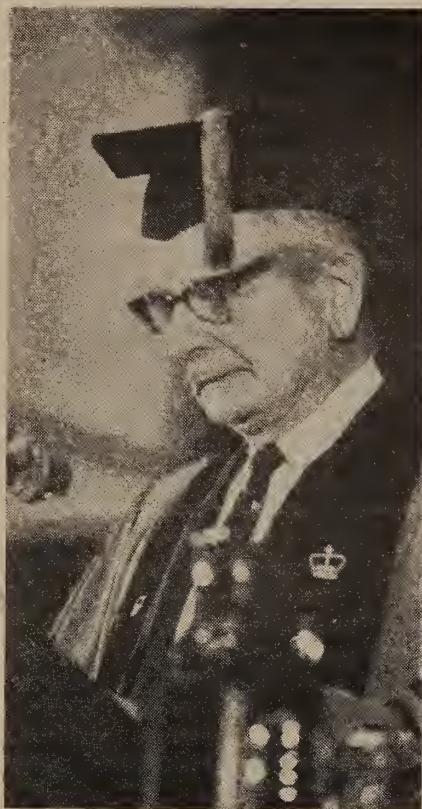
If you attended a formal conference with McLuhan, the high moments were likely to come during informal discussions. I recall vividly an international conference to which we were delegates. It was held in Elsinore, Denmark, an appropriate setting for Marshall, a Hamlet who knew his own mind, who had no fear of mounting the battlements in defence of his ideas. In the evening a number of us were relaxing in the hotel pub. The conversation turned to the problems of NATO, and an American delegate, who had recently stood at the very summit of the councils of his country, was critical of the Canadian attitude, which he thought was hesitant and unenthusiastic. Marshall rose to his country's defence. "Canada," he said, "is a land of multiple borderlines, psychic, social and geographic. Canadians live at the interface where opposites clash. We have, therefore, no recognizable identity, and are suspicious of those who think they have." A cloud passed over the face of the great pro-consul. This was a kind of comment that he had not heard at the meetings of diplomats and that never darkened the familiar clichés of official memoranda. And yet it was the best explanation of the Canadian attitude that I had heard. Marshall's startling generalizations were, as he repeatedly said, "probes". They were neither true nor false; they were not designed to give ultimate answers; they were beams of light that never failed to illuminate some dark area.

McLuhan was a humanist in action — a humanist in the great Renaissance tradition, who not only argued that the humanities were at the centre of know-

The University's tribute

ledge, but demonstrated in his own work that this was so. And at the centre of the humanities was imaginative literature. He was, first of all, in time and interest, a literary critic. In his early work he wrote about poets — Poe, Hopkins, Eliot, Pound — who, he thought, best embodied the modern consciousness, who worked “backwards from the particular effect to the objective correlative or poetic means of evoking that precise effect”; and in his own social criticism, he followed the same method. He had the Renaissance humanist's belief in the power of literature to illuminate life and conduct. “The artist picks up the message of cultural and technical challenge decades before its transforming impact occurs. He, then, builds models or Noah's arks for facing the change that is ahead.” But literature, he believed, cannot be studied fruitfully in its own context. The critic must be receptive to the physical sciences and the social sciences. He disliked narrow specialists and the narrow specialists responded to him in kind: he believed also that the engaged humanist had a broad social responsibility, to carry his perceptions to a wide audience, and to do so with care and humour (jokes, he said, revealed the besetting grievance of the day). In his last active year, for instance, he gave the Ezra Pound Lecture at the University of Idaho, a study of Pound's rhetoric that would delight the most austere textual critic, and a general discourse on the problems of the electronic age to a conference of world bankers assembled in Monaco.

I return to the theme of McLuhan and the spoken word. I see him most characteristically stretched out in an easy chair in the living room of his Wychwood Park home, which, blot out a few distracting tall rises visible to the south, could have been an English country house on the



Claude Bissell

southern downs or the Yorkshire moors. He sits close to the big fireplace, and he rises from time to time to make sure that the flames have not died down, as if he were at the same time rekindling the fire of his own spirit. Despite the sad deprivation of the last months, I believed that the inner fire always burned brightly, and that he continued to live in the glow of the ideas that had so powerfully illuminated his own age.

— Claude Bissell

Marshall and Tom Easterbrook were already close friends when we were all undergraduates at the University of Manitoba in the early 30s. I came to know them both at that time and to value their friendship. But shortly thereafter we each went our separate ways until we were reunited at this university in the late 40s; Marshall in English at St. Mike's, Tom in economics and I in psychology.

Then in the mid-50s we came together more seriously along with Ted Carpenter in anthropology to plan an application to the Ford Foundation which had just announced a new grant program designed to encourage scholars to break out of their departmental cocoons and undertake a variety of interdisciplinary studies. We submitted a proposal whereby each of us would select four graduate students to work with us as part of an interdepartmental seminar on “Culture and Communications”. Our application was successful and each of our four departments was persuaded to accept student registration in our seminar as the equivalent of a regular graduate course. Then once we had won the agreement of Andy Gordon, the sceptical and peppery dean of graduate studies, we were on our way.

By common consent, Marshall was elected chairman of the seminar, a job he did in his own way to be sure; a way that proved to be extraordinarily effective.

It quickly became evident that the Ford Foundation was right, that interdepartmental barriers were real and very high, that we each spoke a different language, and that we had, consciously and unconsciously, adopted sets of assumptions about the world in general and our disciplines in particular that were widely and on occasion wildly at variance with each other. Marshall became very good at

capacity to seize on those concepts that facilitated rather than inhibited the cross-fertilization of ideas, we slowly developed a common language and common approaches to problems of mutual concern. We even learned how to undertake joint research projects, and published them in a journal we founded called *Explorations*. The seminar met every Wednesday evening, 52 weeks a year for the two-year life of the grant. If you wanted, or more likely needed, a holiday from its pressure-cooker atmosphere, you took it. Or if other responsibilities required your attendance elsewhere you went, but the seminar went on. Marshall missed few if any of its sessions.

I was present on the occasion when Marshall, leading a discussion on TV, standing beside the fireplace in the room the seminar used in St. Mike's, one arm on the mantelpiece and thoughtfully gesturing with the other, first said rather pensively, “well, of course, really, the medium is the message”. No blinding lights flashed, no one shouted “Eureka!” but everyone's attention was caught by this unusual if casually made remark.

As he often did with his sudden insights he returned to it during the week, phoning one or another of us to discuss new facets of the contemporary media which this touchstone had made manifest. The seminar then, was the launching pad from which Marshall began his famous “probes”, and no spacecraft, no Voyager II ranged farther than he, nor discovered as much.

As many of you here will know, Marshall was as famous among his friends for his sudden, penetrating insights into them and their affairs as he was to the general public to whom his name became a household word as The Media Man.

I remember one such occasion, when he and Corinne were staying with Peggy and me in London, he suddenly asked me if I liked the city. I replied that I had liked it from the start and added that while Peggy liked it too she had had rather more difficulty than I in adjusting to it. “Well, you know why that is, of course,” he said, and I, puzzled and intrigued replied, “no, I do not know any such thing.” “Why, Carl,” said Marshall, “London is about the same size Winnipeg was when we grew up there as boys; of course it would be easy for you and

harder for Peggy who was born and brought up in Toronto.”

All of us have our favourite anecdotes, illustrating as they do various facets of Marshall's character. This next one, it seems to me, settles once and for all the controversy stirred up by Marshall's difficult prose style. I once tackled him on the subject directly, asking why the stuff had to be so obscure, so hard even for the interested and intelligent reader; so easy for the superficial and suspicious to dismiss as deliberate deception. “Well Carl,” he said, “I will make to you the same offer I have made to all my publishers. I have tried to be as clear as I possibly can in my writing. If you can make it clearer, you're welcome to try.”

Again, the public mind does not readily associate a scholarly mind like Marshall's — complete with its ferocious intelligence, daunting erudition, and soaring imagination — with a sturdy frame and robust physical stamina. While it is worth remembering that he rowed when at Cambridge, that stamina was even more evident in his mature years when, after a cruelly lengthy operation in New York to remove a benign tumour pressing on his brain, his surgeon entered the recovery room and asked, “How are you feeling?”; hoping at best for a mumbled word that would show a return to consciousness. Instead Marshall replied, “That depends on what you mean by feeling!”

One last tale, told at the risk of trespassing on John Kelly's territory. Marshall was always fascinated by dialogue but at one time he was almost obsessed with the idea, insisting it was at the root of all thought and imagination.

I contested this saying, “How can you of all people speak of dialogue, when so much of what you accomplish comes from your thinking-aloud monologues and from your quiet times, when no one is near you?”

“Ah but Carl,” he replied gently, “one is always in dialogue with God.”

“This was my friend, faithful and just to me.”

— D. Carleton Williams

finding ways past flat contradictions, flaring tempers and latent suspicions. During those difficult days none of us doubted him whether we always wholly understood him or not.

But thanks to the serious efforts we all made and thanks to Marshall's intuitive



D. Carleton Williams, right, and, left to right, Reverend John Kelly, Claude Bissell, President James Ham and Chancellor George Ignatieff.

The need to provide a constant-goods pension by augmentation has been very widely recognized in this University for a long time. It is now a widespread concern in the whole country (Appendix 5).

The best means of determining the level of augmentation is not completely clear. Full indexing to a fixed material standard of living such as the CPI is rejected because it is a high positive feedback mechanism which encourages increasing inflation. Fractional indexing to a fixed material standard of living lessens the impact of the positive feedback, but is still a positive feedback measure of augmentation and, in addition, it makes no allowance for community changes in material standards of living.

The proper augmentation criterion must allow for changes in standard of living of the whole group and provide some stabilizing negative feedback. To be conservative it must allow for a reduced material standard of living for the whole community and be an influence tending to reduce inflation.

One such system of augmentation is given in the article "Indexing Made Easy" (Appendix 5), which recommends an actuarial costing of pensions on the basis of a real interest return of three percent. This system provides a small negative feedback. Everyone profits when inflation decreases. A similar system was discussed recently in the *Financial Post* (Appendix 2).

A second and, in our opinion, more direct and less arbitrary system of augmentation, and one which provides a somewhat larger stabilizing negative feedback, is a salary-based augmentation in which all members of a group or organization, active or retired, receive the same economic increment (excluding advancement, promotion or merit increases). This system has been used at the University in a somewhat modified form (i.e., less 1.4 percentage points) for nearly a decade and continues to be enthusiastically supported by the faculty and staff. The negative feedback arises from the fact that pension augmentations are then an integral portion of the economic increases in salary when the latter are being determined by negotiations. It is expected that there would be agreement by negotiation on the contribution to the pension funds of the University, as for example, 2.09 x member contributions. Such an agreement would require that the actuarial surpluses and unfunded liabilities different from that value would constitute an addition to or subtraction from the salary increment.

The committee believes that the augmentation at the level of the past can be funded using the present actuarial assumptions for the plan but recognizes that other changes as discussed below will require restoration of the original funding levels.

For the remaining restoration to the 1966 plan intent, we therefore note the need for some increases in costs.

The committee recommends:

2) That the members' pension contribution rates be restored towards the approximately five percent level from the 3.7 percent of salaries to which they have recently fallen. This would be accomplished by setting the contribution rate at five percent, as many plan members believe it now to be. A five percent minus CPP contribution would be a possible interim step. This increase in contributions would, of course, be subject to negotiation and would contemplate a simultaneous increase in the contributions from the general funds of the University to retain a similar ratio to that now or recently in operation, that is, a factor of 1.8 to 2.5 times the direct members' contributions.

Present contribution rates at Ontario universities are outlined in Appendix 6.

The committee recommends:
3) That the salary base be partly restored to the original near-terminal-salary intent by using the best 36 months annual average salary as the basis replacing the present best five years average.

Detailed recommendations for plan improvement

4) That the plan provide improved augmentation at slightly above the level of the past nine years. The upper bound of such improvement should be the annual economic salary increment paid to all employees.

5) That the augmentation be applied to the first year of retirement up to, but not exceeding, the annual economic salary increment paid to all employees.

6) That the plan provide for a reduction in the severity of the Canada Pension Plan integration. Below age 40 the University plan entitlement should be increased from 0.75 percent to 1.0 percent and from 1.0 percent to 1.5 percent above age 40.

This is a very expensive improvement and should probably be spread over several years unless accompanied by the full application of recommendation 2) to increase contributions to a flat five percent of salary.

7) That the return on investment paid to those who take cash withdrawals from the plan be raised to six percent per annum, to be compounded from January 1, 1981.

8) That the election of early retirement after age 60 by those who have a combined age and service of 85 years not be subject to the five percent per year pension reduction penalty.

9) That the age breakpoint in entitlement rates at age 40, 1.5 percent per year below age 40 and two percent above, be eliminated. This is prejudicial on the basis of age and makes the plan much less attractive to young members. If the breakpoint is to remain at age 40 consideration should be given to raising the age for compulsory membership in the plan to age 40, so that younger members are not forced to make full contributions for partial benefit entitlements.

10) That the recent change in the breakpoint from age 45 to age 40 be applied to existing pensioners.

The committee has attempted to evaluate all of its recommendations in the light of the total compensation package. The definition and understanding of total compensation varies widely among industries and universities. We hope to continue this complex study in the coming year. However, we would recommend as an interim position that at least the pension benefit be considered from the total compensation point of view in two ways. It is very helpful to view the funding for the pension as a total cost of 11.5 percent of the salary budget paid by the common funds of the University. Although it is paid in two parts, both as a contribution from the members (3.7 percent) and a contribution from the general fund (2.09 x 3.7 percent), the total compensation concept is helpful in pension discussions in that it focuses attention on the relative merits of immediate versus delayed consumption for each member.

Appendix 1: Dollar Devaluation — The value of September dollars* in 1966 cents.

1961	112.4	1966	100.0	1971	83.4	1976	55.8
1962	110.7	1967	96.3	1972	79.2	1977	51.4
1963	108.7	1968	92.7	1973	73.0	1978	47.4
1964	107.0	1969	88.7	1974	65.8	1979	43.3
1965	104.2	1970	86.3	1975	59.5	1980	39.1

One 1980 dollar has a value equal to 39.1¢, 1966 cents.

Decrease in the value of the dollar during each month in percentages (Negative values are increases)

	January Janvier	February Février	March Mars	April Avril	May Mai	June Juin	July Juillet	August Août	September Septembre	October Octobre	November Novembre	December Décembre
1966	0.2	0.7	0.1	0.6	0.1	0.2	0.4	0.5	-0.1	0.1	0.1	0.2
1967	0.1	-0.1	0.2	0.9	0.1	0.6	0.9	0.5	-0.2	-0.1	0.3	0.6
1968	0.5	0.1	0.3	0.6	0.0	0.3	0.7	0.2	0.3	0.2	0.4	0.3
1969	0.2	0.0	0.5	1.1	0.2	0.8	0.4	0.5	-0.2	0.2	0.4	0.4
1970	0.2	0.4	0.1	0.6	0.0	0.2	0.4	0.0	-0.2	0.1	0.0	-0.4
1971	0.4	0.4	0.3	0.7	0.4	0.2	0.8	0.7	-0.2	0.1	0.4	0.7
1972	0.3	0.4	0.1	0.6	0.1	0.1	1.3	0.8	0.4	0.1	0.3	0.7
1973	0.8	0.6	0.3	1.1	0.7	0.9	0.9	1.3	0.6	0.3	0.8	0.5
1974	0.8	1.0	1.0	0.7	1.6	1.3	0.7	1.0	0.6	0.9	1.1	1.0
1975	0.5	0.8	0.5	0.5	0.8	1.5	1.4	1.0	0.2	0.9	0.9	0.1
1976	0.6	0.3	0.4	0.4	0.8	0.5	0.4	0.5	0.5	0.7	0.3	0.3
1977	0.9	0.9	1.0	0.6	0.8	0.7	0.9	0.4	0.6	1.0	0.7	0.7
1978	0.4	0.7	1.1	0.2	1.4	0.9	1.5	0.1	-0.2	1.0	0.8	0.3
1979	0.8	0.9	1.2	0.7	1.0	0.5	0.8	0.4	0.9	0.7	1.0	0.6
1980	0.6	0.8	1.1	0.6	1.2	1.1	0.8	0.9				

From January 1966 to January 1972, a total of 72 months, only six months showed an increase in dollar value, and in each of those cases the increase was no more than a short plateau in the general decrease.

There has been only one monthly increase in dollar value since.

* Dollar values from Consumer Price Index.

(People interested in seeing Appendices 2-6 should call Michael Dafoe, Personnel and Student Affairs, at 978-4980.)

Hart House Gallery Club

Come and join us in the Gallery Club the next time you are staying on campus in the evening. We offer convenience, reasonable prices and friendly service in quiet comfortable surroundings. Enjoy a drink in front of the fireplace and sample our new dinner menu any weekday evening.
Bar service 5-8 pm. Dinner served 6-7:30 pm.
Call 978-2445 for reservations.

Events

Lectures

Monday, February 9

Mozart and Modern Philosophy.
Prof. André Gombay, Philosophy, Scarborough College; Humanities Festival Week. H-215 Scarborough College. 10 a.m. (Lecture will also be given Feb. 11.)

Poetry.

Jean-Lou Déziel, Quebec; Humanities Festival Week. R-3232 Scarborough College. 10 a.m.

(Please note, lecture will be given in French.)

Plato.

Prof. Paul Gooch, Philosophy, Scarborough College; Humanities Festival Week. R-3231 Scarborough College. 2 p.m.

The Young Friedrich Engels and the British Working Class.

Prof. Adolfe M. Birke, visiting professor of German and European studies. 179 University College. 4 p.m.
(European Studies Committee, CIS, and Goethe Institute)

Tuesday, February 10

St. Paul.

Prof. Richard Longenecker, Wycliffe College; Humanities Festival Week. H-402 Scarborough College. 11 a.m.

Novels of the Mexican Revolution.

Prof. P.R. León, Spanish, Scarborough College; Humanities Festival Week. R-3229 Scarborough College. 2 to 4 p.m.

Women in the Canadian Workforce.

Madeleine Parent, Confederation of Canadian Unions; Canadian Studies Festival in Humanities Festival Week. Council Chamber, Scarborough College. 3 p.m.

The Origins of the Zapotec State in Prehistoric Oaxaca, Mexico (tracing the development of civilization in Pre-Columbian Mexico).

Prof. Kent V. Flannery, University of Michigan; SGS Alumni Association lecture series 1980-81. Room 205, Faculty of Library Science, 140 St. George St. 8 p.m.
(SGSAA and Anthropology)
(Please note date.)

Wednesday, February 11

British Stereotypes of Italians.

Prof. S.B. Chandler, Department of Italian Studies; Humanities Festival Week. Council Chamber, Scarborough College. 10 a.m.

Mozart and Modern Philosophy.

Prof. André Gombay, Philosophy, Scarborough College; Humanities Festival Week. H-215 Scarborough College. 10 a.m.

Hellenistic and Roman Palace Architecture.

Prof. F.E. Winter, Department of Fine Art; first of four, Victoria College public lectures 1981. 113 New Academic Building, Victoria College. 4.30 p.m.

What You May Expect from a Psychiatrist in the '80s.

Prof. Vivian Rakoff, Department of Psychiatry; chairman's inaugural lecture. Auditorium, Clarke Institute of Psychiatry. 5.15 p.m.

Thursday, February 12

Religious Determinants in Canadian History.

Prof. John Moir, History, Scarborough College; Canadian Studies Festival in Humanities Festival Week. Council Chamber, Scarborough College. 3 p.m.

The East-West Opposition in Social Philosophy of Classical Marxism.

Prof. Michael Vitkin, University of Manitoba. Croft Chapter House. 4 p.m. (Philosophy)

Sperm Entry and the Block to Polyspermy.

Prof. Richard Elinson, Department of Zoology; Humanities Festival Week. S-309 Scarborough College. 4 p.m.

Friday, February 13

Bussy D'Ambois through the Looking Glass.

Prof. Ian Shaw, Brock University; Humanities Festival Week. R-3225 Scarborough College. 2 p.m.

Saturday, February 14

Hospital Diagnostic Imaging—1981.

Dr. John E. Campbell, Sunnybrook Medical Centre. Convocation Hall. 8.15 p.m., doors open 7.30 p.m. (Royal Canadian Institute)

Tuesday, February 17

The Evolution of Cushing's Syndrome.

Prof. Grant W. Liddle, Vanderbilt University School of Medicine; 14th Ray F. Farquharson Memorial Lecture. Academy of Medicine (entrance north-east corner Bloor and Huron). 4.30 p.m.

Wednesday, February 18

Recent Discoveries at Kommos in Crete.

Prof. Joseph W. Shaw, Department of Fine Art. Lecture room, McLaughlin Planetarium. 4.30 p.m.
(Archaeological Institute of America, Toronto Society)

Saturday, February 21

Ice Age Man in Ontario.

P.L. Storck, Department of New World Archaeology, ROM. Convocation Hall. 8.15 p.m., doors open 7.30 p.m. (Royal Canadian Institute)

Sunday, February 22

Contemporary Teaching Materials for Grades 6, 7, 8 and 9.

Earle Moss, lecture/demonstration. Royal Conservatory of Music, Runnymede Branch, 566 Annette St. Admission \$5. Information, 767-2701.

Colloquia

Wednesday, February 11

Infrared Magnitudes, HI Linewidths and the Distance Scale.

Prof. Marc Aaronson, University of Arizona. 134 McLennan Physical Laboratories. 4 p.m. (Astronomy)

Thursday, February 12

Models of Elliptical Galaxies.

Prof. Douglas Richstone, University of Michigan, Ann Arbor. 103 McLennan Physical Laboratories. 3 p.m. (Astronomy)
(Please note day and time.)

The Notion of Equilibrium in Thermodynamics and Grand Unification Theories.

Prof. Max Dresden, State University of New York at Stony Brook. 102 McLennan Physical Laboratories. 4.10 p.m. (Physics)

Seminars

Monday, February 9

A New Approach to Medical Knowledge Engineering.

Dr. James Reggia, University of Maryland; artificial intelligence seminar. 134 McLennan Physical Laboratories. 4 p.m.

Ukrainians in Canada as Enemy Aliens: A Case Study.

Lubomyr Luciuk, University of Alberta. St. Vladimir Institute, 620 Spadina Ave. 7.30 p.m.
(Canadian Institute of Ukrainian Studies, Toronto Office)

Tuesday, February 10

Pattern Formation in Slime Mold Development.

Prof. Ikuo Takeuchi, Kyoto University. 417 Best Institute. 4 p.m. (BBDMR)

Comparative Development and Mineral Deposits of the Transvaal (South Africa) and Hamersley (Australia) Basins.

Prof. Andrew Button, South Dakota School of Mines & Technology. 202 Mining Building. 4 p.m.

Herpesviruses, Venereal Disease and Cancer.

Prof. Fred Rapp, Pennsylvania State University. 235 FitzGerald Building. 4 p.m. (Microbiology & Parasitology)

Wednesday, February 11

Economics Unbound: The Problem of Altruism.

Prof. Stanley Wong, Carleton University; 12th of Law & Economics Workshop series 1980-81. Papers will be circulated week in advance of presentation; author will make introductory statement, discussion and critical analysis will follow. Solarium, Falconer Hall, 84 Queen's Park Cresc. 12.15 to 1.45 p.m. Registration fee which covers paper and lunch, single session \$3. Please note, registration in advance required for single session if copy of paper and lunch required.

Friday, February 13

Proton Transfer between Electro-negative Atoms: Rare-Determining or Not?

Prof. A.J. Kresge, Department of Chemistry. 158 Lash Miller Chemical Laboratories. 3.30 p.m.

Wednesday, February 18

Galaxy Mergers.

Prof. Scott Tremaine, Princeton University. 134 McLennan Physical Laboratories. 4 p.m. (Astronomy)

Information and registration: Verna Percival, secretary to the Law & Economics Program, Faculty of Law, 978-6767.

Thursday, February 12

Dietary Precursors of Neurotransmitters: Fantasies, Facts and Prospects Concerning Their Use in Pharmacotherapy.

Dr. S.N. Young, McGill University. 2173 Medical Sciences Building. 11 a.m. (Nutrition & Food Science)

Receptors for Insulin and Somatomedin: Inoreceptors for Homologous Polypeptide Hormones.

Dr. Morley D. Hollenberg, University of Calgary. 417 Best Institute. 4 p.m. (BBDMR)

Intra- and Extracellular Transport Routes in the Insect Telotrophic Ovary.

Prof. Erwin Huebner, University of Manitoba. 432 Ramsay Wright Zoological Laboratories. 4 p.m.

Neighbourhood Structure and Community Development.

Marvyn Novick, Social Planning Council; visiting, Centre for Urban & Community Studies. Coach house conference room, 150 St. George St. 4 to 6 p.m. (Urban & Community Studies)

Friday, February 13

Eden: A Functionally Integrated Environment for Distributed Computing.

Prof. Edward D. Lazowska, University of Washington, Seattle; computer systems seminar. 118 McLennan Physical Laboratories. 2 p.m.

Catullus' Poems to Manlius and Allius (68a + b).

Prof. R.J. Tarrant, Department of Classics. 144 University College. 3.10 p.m.

Tuesday, February 17

Granitoid Rocks and Associated Mineral Deposits of North Atlantic Paleozoic Orogens.

Prof. D.F. Strong, Memorial University; GAC past-president medal national lecture tour. 130 Mining Building. 4 p.m. (Geology and Toronto Geological Discussion Group)
(Please note room.)

Wednesday, February 18

Damages and Mitigation of Loss.

Prof. Stephen Waddams, Faculty of Law; 13th of Law & Economics Workshop series 1980-81. Papers will be circulated week in advance of presentation; author will make introductory statement, discussion and critical analysis will follow. Solarium, Falconer Hall, 84 Queen's Park Cresc. 12.15 to 1.45 p.m. Registration details, please see listing Feb. 11.

Monday, February 23

WASPs in Canada: A Dominant Group in Decline?

Linda Deutschmann, sociologist specializing in ethnic relations. St. Vladimir Institute, 620 Spadina Ave. 7.30 p.m. (Canadian Institute of Ukrainian Studies, Toronto Office)

Planning a campus event?

A *Guide to Events Planning* gives tips on organization and procedures for making a success of your event. It lists U of T services and is available free. Contact: Public Relations Office, St. George campus, 45 Willcocks St., 978-2103 or 978-2105.

Gossip

By George F. Walker

February 12th - 28th

Tuesday - Saturday 8.30 p.m.

Tickets \$5.00, students and senior citizens \$3.00

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Events

Meetings & Conferences

Friday, February 13

Canadian Perspective on Flemish and Dutch Culture.

Second Netherlandic Studies conference, Feb. 13 and 14.
Conference will focus on subjects dealing with Flemish and Dutch culture from a Canadian point of view. Papers will be read in sociology, politics, literature and the visual arts by staff members from McGill University, the University of Montreal, Carleton University and UofT. All sessions will be held in Alumni Hall, Victoria College. Two sessions each day, 9 a.m. and 2 p.m. Registration: Feb. 13, Alumni Hall. 8 a.m.

Registration fee \$10, students \$3, senior citizens free.

(Victoria College and Canadian Association for the Advancement of Netherlandic Studies, Toronto Chapter)

The Individual in the Modern Technological Society.

18th annual conference on Law and Contemporary Affairs, Feb. 13 and 14.

Friday, February 13

Technology and the Individual: The Moral Question. Panelists: Prof. Stephen Marglin, Harvard University; Prof. Allan Bloom, University of Chicago; Prof. Thomas Pangle, Department of Political Economy; Prof. William Vanderburg, Department of Sociology. 10 a.m.

Computer/Telecommunications

Technology: The Information Revolution. Panelists: Gordon Thompson, Bell Northern Research; Galen Duncan, Canadian Law Information Council; Prof. Manley Irwin, University of New Hampshire; Israel Switzer, Cable Casting Ltd. 2 p.m.

Medical Technology: Reproductive and Recombinant Genetic Engineering. Panelists: David Roy, Clinical Research Institute, Montreal; Prof. Bernard Dickens, Faculty of Law; Prof. Barry Hoffmaster, University of Western Ontario; Dr. Ronald Worton, Hospital for Sick Children. 8 p.m.

Saturday, February 14

Electronic Surveillance and Privacy. Panelists: David Watt, Ministry of the Attorney General; Alan Borovoy, Canadian Civil Liberties Association; E.G. Ewaschuk, Department of Justice; Morris Manning, barrister; Robert Patterson, Ontario Provincial Police. 10 a.m.

Shaping Technology through the Law. Panelists: The Hon. Mr. Justice Willard Estey, Supreme Court of Canada; Prof. Bruce Doern, Carleton University; Prof. Sheila Jasanoff, Cornell University; Prof. Liora Salter, Simon Fraser University. 3 p.m.

Luncheon banquet will be held Saturday in Great Hall, Hart House; guest speaker, Prof. J. Tuzo Wilson, Ontario Science Centre. 12.30 p.m.



Public Notice

University of Toronto, Public Information Meeting
Wetmore Hall, New College, 20 Classic Ave.
Wednesday, March 18, 7:00 p.m.

The University of Toronto has applied to the Atomic Energy Control Board of Canada for a license to operate a low-level radioactive waste holding facility adjacent to the basement of the McLennan Physical Laboratories, 255 Huron Street. It is intended that this facility replace the presently licensed facility at 1 Spadina Crescent and be used to hold low-level radioactive waste from universities, hospitals, government and other licensed users in Metro Toronto, prior to its disposal by approved means.

This meeting will provide an opportunity for members of the public to ask questions and obtain answers from University representatives and regulatory agencies on technical aspects of the proposal and to provide the University and regulatory agencies with knowledge of any public concerns which would affect the licensing process.

For those who wish to attend this public meeting, background information materials are available for review, or may be reproduced at cost, at the following locations during normal library hours:

Circulation Desk, Robarts Library, 4th floor, 130 St. George St.
Circulation Desk, Engineering library, 214 College St. (former Metro Library) or at

Office of the Vice-President Personnel and Student Affairs, 115 Simcoe Hall, 27 King's College Circle during normal business hours.

The background material has been submitted to the following regulatory agencies, which will be represented at the public meeting:

Director General
Fuel Cycle Branch
Atomic Energy Control Board
P.O. Box 1046
Ottawa, Ontario K1P 5S9

Head, Radioactivity Unit
Waste Management Branch
Ontario Ministry of the Environment
135 St. Clair Ave. West
2nd floor
Toronto, Ontario M4V 1P5

Director — Central Region
Ontario Ministry of the Environment
135 St. Clair Ave. West
Toronto, Ontario M4V 1P5

Director General,
Environmental Protection
Service
Environment Canada
25 St. Clair Ave. East
7th floor
Toronto, Ontario M4T 1M2

Director, Environmental
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Ontario Ministry of the Environment
135 St. Clair Ave. West
10th floor
Toronto, Ontario M4V 1P5

Chief, Radiation Protection
Service
Special Studies and Services
Branch
Ontario Ministry of Labour
400 University Ave., 8th floor
Toronto, Ontario M7A 1T7

Persons wishing to ask questions about the proposal prior to the public meeting should contact:

Dr. W.E. Alexander
Vice-President Personnel and Student Affairs
Simcoe Hall 115
University of Toronto, Toronto, Ontario M5S 1A1
Tel: 978-2757

All sessions will be held in auditorium, Medical Sciences Building.

Registration fee: sessions only \$15, students \$5; sessions and banquet \$25, students \$9.

Information, Conference on Law and Contemporary Affairs, Faculty of Law, 978-6371.

Thursday, February 19

16th Canadian Symposium on Water Pollution Research.

Sessions will be concerned with wastewater treatment, surface and ground waters, water chemistry and biology. All sessions will be held at Victoria College, New Academic Building. Morning sessions, 9.30 a.m. to 12.30 p.m., afternoon sessions, 2 to 4.45 p.m. Registration in foyer, New Academic Building, from 8.30 a.m.

Registration fee \$50, includes year's subscription to *Water Pollution Research Journal of Canada*. Registration fee for students for symposium \$2; students wishing to subscribe to the *Journal* may do so by registering at symposium desk and prepaying \$20.

Information and programs, 978-3141. (Civil Engineering and IES)

Films

Tuesday, February 10

Canadian Animated Films.

National Film Board animated films with commentary by René Jodoin, NFB animator; Canadian Studies Festival in Humanities Festival Week. Meeting Place, Scarborough College. 12 noon to 2 p.m.

Old Houses.

What Is a House?

Family House.

Auditorium, Medical Sciences Building. 7.15 p.m. (Fine Art)

Wednesday, February 11

Canadian Animated Films.

National Film Board animated films with commentary by René Jodoin, NFB animator; Canadian Studies Festival in Humanities Festival Week. Meeting Place, Scarborough College. 12 noon to 2 p.m.

Seduced and Abandoned.

Film by Pietro Germi in Italian with English sub-titles; Humanities Festival Week. H-309 Scarborough College. 4 to 7 p.m.

Friday, February 13

A Fine Line.

Film about two disabled people; Humanities Festival Week. S-143 Scarborough College. 12 noon.

Governing Council & Committees

Wednesday, February 11

Admissions & Awards Subcommittee.

Board Room, Simcoe Hall. 4 p.m.

Wednesday, February 18

Business Affairs Committee.

Board Room, Simcoe Hall. 4 p.m.

Thursday, February 19

Governing Council.

Council Chamber, Simcoe Hall. 4.30 p.m.

Monday, February 23

Planning & Resources Committee.

Council Chamber, Simcoe Hall. 4 p.m.

Tuesday, February 24

Committee on Campus & Community Affairs.

Council Chamber, Simcoe Hall. 4 p.m.

Events

Concerts

Monday, February 9

St. Nicolas.

By Benjamin Britten. Performance by Scarborough College Chorus has been postponed.

Tuesday, February 10

Finno-Ugric Musical Traditions.

Roman Toi and choral group; third in series of five lectures and performances, Music of the World's Peoples. Croft Chapter House. 8 p.m. Information, 978-6564.

(Music, FEUT, Spanish & Portuguese, Middle East & Islamic Studies, South Asian Studies and Community Relations)

Wednesday, February 11

Conservatory Strings.

Works by Elgar, Handel, Scarlatti and Warlock; student talent exchange, Royal Conservatory of Music in cooperation with Ontario College of Art. Nora E. Vaughan Auditorium, Ontario College of Art. 4.30 p.m. Information, OCA, 977-5311.

Thursday, February 12

Alex Dean Quartet.

Canadian Studies Festival in Humanities Festival Week. Meeting Place, Scarborough College. 12 noon.

Whiskey Jack Quartet.

Thursday noon popular music series. East Common Room, Hart House. 12.15 to 2 p.m.

Chamber Music.

Recital by student performers, Thursday afternoon series. Walter Hall, Edward Johnson Building. 2.10 p.m.

Mitsuko Uchida, Piano.

Program: Rondo in A minor, Mozart; Sonata in C minor (op. 111), Beethoven; Sonata in G major, Schubert. Convocation Hall. 8 p.m. Information, 978-6564.

(East Asian Studies, Community Relations and Consulate General of Japan)

Friday, February 13

Joji Yuasa.

Composer-in-residence at U of T will speak about his music and the music of other Japanese composers; fifth of eight, mini lecture series. Walter Hall, Edward Johnson Building. 8 p.m.

Admission \$1, free to New Music subscribers. Information, 978-3744.

Daniel Lichti, Baritone, and Arthur Janzen, Tenor.

Music Committee, Hart House, in

cooperation with CBC. Music Room, Hart House. 8 p.m.

Orchestral Training Program.

Victor Yampolsky will be conductor, program includes works by Mozart, Prevost and Prokofieff; eighth of 11 Friday evening concerts by the Orchestral Training Program of the Conservatory. Concert Hall, Royal Conservatory of Music. 8.15 p.m.

Admission, pay-what-you-can. Information, 978-3771.

Sunday, February 15

Complete Mozart Sonatas.

Antonin Kubalek, last in series of four master classes and concerts. Concert Hall, Royal Conservatory of Music. Master class, 2.30 to 5.30 p.m.; concert 8 p.m.

Fees: auditor, class and concert \$10; concert \$6. Information, 978-3771.

Thursday, February 19

James Anagnoson and Leslie Kinton, Duo Pianos.

Sonata Op. 34/bis, Brahms; sixth in Thursday twilight series. Concert Hall, Royal Conservatory of Music. 5.15 p.m. Information, 978-3771.

Friday, February 20

Orchestral Training Program.

Steven Staryk will be leader and soloist with OTP Strings, program includes works by Rossini, Vivaldi, Bach and Mozart; ninth of 11 Friday evening concerts by the Orchestral Training Program of the Conservatory. Concert Hall, Royal Conservatory of Music. 8.15 p.m.

Admission, pay-what-you-can. Information, 978-3771.

Sunday, February 22

Martha Collins, Soprano.

Accompanied by John Coveart, piano; program includes works by Brahms, Debussy, Marx and Obradors and Irish folk songs. All proceeds to Royal Conservatory Alumni scholarship fund. Concert Hall, Royal Conservatory of Music. 3 p.m.

Tickets \$4, students and senior citizens \$3. Information, 978-3771.

Haydn/Shostakovich Series.

Fourth of five concerts presented by Faculty of Music in cooperation with CBC Radio. Rosemarie Landry, soprano; Janet Stubbs, contralto; Glyn Evans, tenor; John Dodington, bass; Claude Savard, piano. Program: 24 Preludes (op. 34), From Jewish Folk Poetry (op. 79) and Four Romances (op. 46) for Bass and Piano by Shostakovich; Piano Sonata in D major and Four-part Songs by Haydn. Walter Hall, Edward Johnson Building. 8 p.m.

Tickets \$6, students and senior citizens \$3. Information, 978-3744.



Ryerson Community Plan by Moorhead Fleming Corban Ltd. of Toronto, honour award, design section, in the first Ontario Association of Landscape Architects professional awards program sponsored by the OALA and Department of Landscape Architecture.

Plays & Readings

Monday, February 9

Zoo Story.

By Edward Albee, produced by Scarborough College Drama Club; Humanities Festival Week. TV Studio 1, Scarborough College. 12 noon to 1 p.m.

Poems and Monologues.

Jean-Lou Déziel will read his own works; Humanities Festival Week. R-3103 Scarborough College. 3 to 5 p.m. (Please note, reading will be in French.)

Tuesday, February 10

The Master and Margarita.

Adapted from the satirical novel by Mikhail Bulgakov, scripted and directed by Nancy Merritt Bell.

Evening.

Video wave play, theatrical journey into the third dimension of television, conceived and directed by Daniel Brooks. Double bill in series of six shows by student directors.

University College Playhouse to Feb. 14 at 8 p.m. Information and reservations, 978-6638 or 978-6307.

(UC Players' Guild and UC Drama Program)

Wednesday, February 11

Eli Mandel.

Poetry reading; Canadian Studies Festival in Humanities Festival Week. Council Chamber, Scarborough College. 3 p.m.

UC Poetry Readings.

Ted Chamberlin and Hans de Groot will read Victorian prose: Carlyle, Ruskin, Pater, Wilde. Walden Room, University College Union, 79 St. George St. 4.10 p.m.

Prometheus Bound.

By Aeschylus, contemporary translation by James Scully, will be presented in modern staging with live orchestral

music; third of four plays in Graduate Centre for Study of Drama studio theatre season.

Studio Theatre, 4 Glen Morris St., to Feb. 14 at 8 p.m.

Admission \$1. Information and reservations, 978-8668.

Friday, February 13

Readings from The Rape of the Lock.

Members of the English faculty, Scarborough College; Humanities Festival Week. Meeting Place, Scarborough College. 11 a.m.

Monday, February 23

UC Poetry Readings.

Ann Saddlemeyer and Michael Sidnell will read Yeats: Purgatory and selected poems. Walden Room, University College Union, 79 St. George St. 4.10 p.m.

Exhibitions

Monday, February 9

Brian Pel, Photographs.

New Academic Building, Victoria College, to Feb. 13.

Hours: Monday-Thursday to 9 p.m.; Friday to 5 p.m.

Monday, February 16

M.S. Yolles & Partners, Engineers.

Work of the firm. Galleries, Architecture Building, 230 College St., to March 5. (Architecture & Landscape Architecture)

Miscellany

Tuesday, February 10

Hockey.

Lady Blues vs McMaster. Varsity Arena. 7.15 p.m.

Wednesday, February 11

Contemporary Thought Patterns in the Soviet Union.

Prof. Michael Vitkin, University of Manitoba; third in series of luncheon discussions, "Christianity and Culture and SMCSU". Brennan Hall, St. Michael's College. 12 noon to 1 p.m.

Thursday, February 12

Hockey.

Blues vs Brock. Varsity Arena. 7 p.m. Tickets \$3, students \$2. Information, 978-4112.

Saturday, February 14

Basketball.

Blues vs Carleton. Sports Gym. 2.15 p.m. Admission \$2, students \$1. Information, 978-4112.

Is public misinformed about nuclear energy?

I believe that all public endeavours, including the production of electrical power, should be made as safe as reasonably possible.

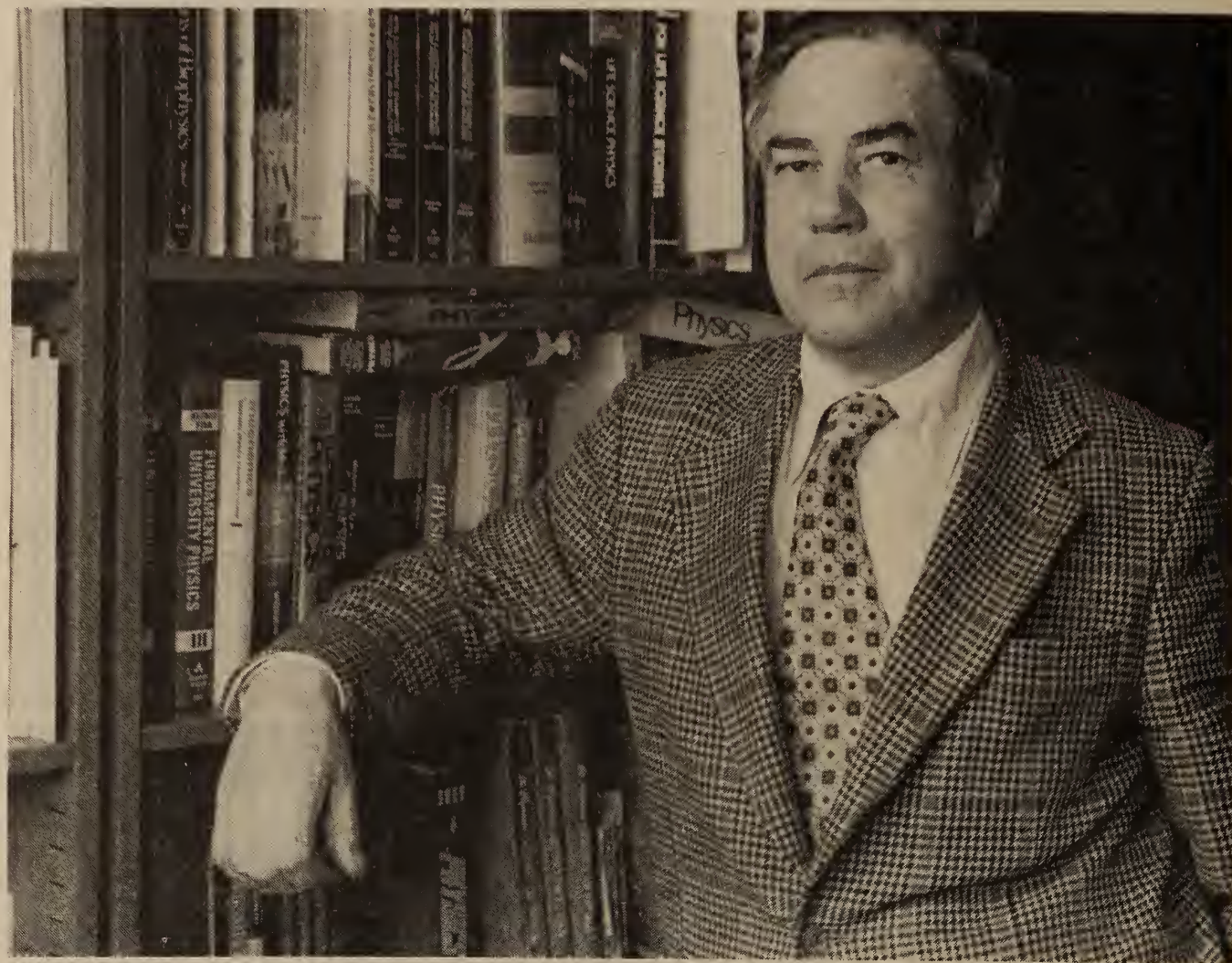
All actions carry potential benefits and risks. Using the road has the presumed benefit of getting somewhere, but mechanical and human errors produce risks of being hit by a car, or losing control of one's own vehicle and being injured. Very rarely are the benefits and the risks weighed in quantitative terms. Generally the risks are felt to be "negligible" — that is, they aren't seriously considered, but in bad weather conditions people do consciously decide not to take the risk of, for example, driving to the movies. It may be noted that in Ontario 1,500 people (2 in 10,000) are killed each year in some traffic accident and one in 100 injured each year. As half the two-car accidents are caused by "the other chap", it cannot be claimed that these very significant risks are under one's own control.

The accident rates are kept down at their present level by education and by vigilance on the part of the public transport authorities and the police. The rates could be reduced much further, but by measures which society doesn't appear willing to accept — for instance, by greatly increasing police forces, greatly reducing speed limits, increasing car weights and strengths or, at the extreme, by prohibiting traffic altogether. The public accepts the current level of risk in return for the benefits of road use, with the probability of an accident being kept as low as reasonably possible — the "reasonably" here being governed by largely social and economic factors.

A more quantitative approach to benefit and risk is taken in buying major items, such as houses. Here the risks are largely financial, but other considerations include, for instance, social ones (the neighbours), and environmental ones, for instance, the possibilities of flooding. At this level alternatives are considered and the pros and cons of other housing taken into account before a decision is made. For items such as power stations, affecting a community, it used to be the custom that the decisions on cost and siting were taken by government and/or the power generating companies. In the present climate the whole community is supposed to be involved, and for sensible decisions to be made at least a significant fraction of the community must be knowledgeable about benefits and costs of the proposed plant, and about costs and risks of alternative schemes.

In the context of electricity generating stations powered by nuclear energy, the public is told much of the risks of such power production, but is told little of the risks of alternative schemes. As their costs are not given prominence by the mass media, I believe that the public is misinformed about energy in general and thus about nuclear energy.

Faced with the stated problem that the Western economy has been based on cheap oil, and that this oil will be unavailable within a relatively short time, what are the alternative courses of action? One extreme would be doing without; and another would be to send in troops to ensure that the West got what was going at the rate we wanted it. Both extremes would almost certainly result in violence. The costs and risks of a major war arising directly from an international fight for oil, or, secondarily, of civil strife in a major nation, are so great that beside them all the risks of schemes for alternative sources of energy pale into insignificance. But almost every day we see signs of conflict in the most sensitive area of the world oil economy. At the present time two of the oil-rich countries are fighting;



this could lead to a major disruption of oil supplies. Alternative methods must be used to buffer the world from problems in the Middle East.

Alternative schemes include coal and natural gas, nuclear fission, fusion, solar power (including wind and wood), biomass, tidal and geothermal. None but fossil fuel and nuclear fission appears in the least likely to do an adequate job for perhaps 30 or 50 years. Although this is a sufficiently short time that research and development should be carried on now in the other fields, it is such a long time that coal or nuclear power must be used in the interim (except in particularly favoured places where hydro-electric power may still be developed — Ontario is not one of these).

Now coal is, by the standards by which nuclear power is judged, an exceedingly dangerous fuel. It is a killer in its production, its gaseous effluents and its solid wastes. The death rate due to the use of coal as a prime source of energy in an electrical generating station is estimated to be about 10 deaths per 1,000 Megawatt years (Mw yr) (the energy produced by a largish power station each year — Toronto Hydro uses 2,000 Mw yr or so each year), compared to less than one death per 1,000 Mw yr if uranium is used. These figures take into account deaths in the winning of the coal or uranium, its transport, processing, usage and the effect of normal effluent, as well as taking into account the possibilities of major accidents. The reasons for the 10-fold difference largely lie in the fact that for the same amount of energy much greater quantities of coal have to be dug and transported than uranium (something like a 300-fold difference — and as the main dangers of both coal and uranium mining are mechanical, not nuclear, the dangers are much greater in the coal mines) and that the gaseous effluents put out by coal burning stations are much more toxic than those permitted from nuclear stations. The classic examples are the deaths in London in 1952, when, due to an atmospheric condition, the coal

effluents were not dispersed. In the County of London, where deaths normally were about 900 per week, 2,500 died in one week. These, it should be noted, were not potential deaths somewhere in the next 20 or 30 years — they were deaths immediately ascribable to the smoke pollution and do not take into account deaths or life-shortening further down the line. In more recent times, it may be noted that the outflow of radioactive material from Three Mile Island in the accident and clean-up may cause one or two deaths in the course of the next 50 years or so, but the replacement of the power not being generated in TMI, by electricity produced from coal, will cost some 15 lives every year that TMI is not operating.

Coal is of course one of the prime causes of the acid rain which is having such disastrous ecological effects on our country. The radioactivity released when coal is burnt is also not insignificant. There is concern (and properly so) about the radioactive tailings produced in uranium mining and milling, tailing ponds in which the radioactive daughters of uranium are collected. It is, however, not so generally recognized that when coal is used, radioactivity trapped in the coal itself is released. Per unit of electricity, the radioactivity released from the coal is only about a 10th of that produced in the

uranium milling operations, but on the other hand the radioactivity released from coal is not collected and largely contained, but is indeed dispersed over the urban areas around the fossil fuel power station.

There is a very frightening ignorance in the public about all forms of energy, and the media are doing little to dispel this. The public needs, and needs rapidly, unbiased information on which to decide which form the absolutely essential alternative to oil must take. This alternative will not only have to replace current oil-fired electric generators, but will have to fuel new generators replacing the transportation power and the heating now supplied by oil. If this is not done quickly, we may find that violence has overtaken reason.

The major question that needs to be answered is whether people wish to avoid a nuclear war by using other fuels and reducing our dependence on oil in the very near future. Assuming the answer is yes, then the question is what alterations or alternatives will be safest, taking into account the whole fuel cycle, from winning to disposal. People are not getting this information.

K.G. McNeill is a professor in the Department of Physics.

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Forum

Luste has done the University a great service

Although he has doubtless ruffled many feathers, Professor George Luste has done the University a great service in his tireless efforts to convince the administration that large sums of money have been (and still are being) wasted by computing services. Anyone who has read his 62-page memorandum and supporting appendices cannot fail to be impressed with the strength of his case (*pace* President Ham).

This institution is certainly not the only one to have had severe computing problems (I can cite two others) and the *dramatis personae* in these institutions are usually the same as ours:

1. The Director of Computing, anxious to run an expensive, powerful (preferably large) computing centre equipped with the latest hardware; sensitive to (and possibly obstructive of) any real or imagined erosion of his power and influence.
2. The Users, some very knowledgeable, some less so, all anxious to get the most convenient and cheapest computing.
3. The Chairman of the Department of Computer Science, a user in a special category, with needs wider and deeper than most other individual users.
4. The Manufacturers, anxious to sell/rent their expensive equipment, often none too scrupulous as to where and how pressure to achieve this is applied.
5. The Administration, largely unknowledgeable, anxious to reconcile the frequently opposing requirements of 1, 2 and 3 and uncertain whom to trust.

These *personae* are the elements of a power struggle, one that has been enacted at great cost in time and money over the last 15 years at this University. Faced with this power struggle the administration has vacillated between attempts to take users' advice seriously (setting up advisory committees with significant power) or

alternatively completely ignoring or disbanding them. In between these extremes they have (as in this present saga) sought outside advice but done little to ensure that the advice would give a balanced view.

As I see it, the only solution is for the administration to set up (yet again) a properly constituted and elected advisory committee on computer services. This committee

- (i) must be elected in such a way as to have the support of the computer-using community
- (ii) must have as its member the director of computing services and some of his staff and
- (iii) the chairman of computing science (or his deputy) and
- (iv) a representative body of users *who shall be in a majority*.

The reasons for (iv) are cogent. The users are *paying* for the service and they have a vested interest in economy. Their track record *vis à vis* that of the computing service is very good. To cite but a few initiatives: Class C jobs, Class E jobs, WATFIV, independent computers for physics/astronomy and chemistry. I believe most of these initiatives were opposed by whoever was currently in charge of the computing centre.

The activities of the computing centre must be open to public scrutiny. It seems clear that much time is spent by computing services personnel on systems development. A centre for computing services is not the place for system development. Systems software should be purchased from manufacturers.

Computing at U of T will never be a peaceful activity, but let us at least hope it will be rationally conducted.

S.C. Nyburg
Department of Chemistry

Clarifications on U of T's 'Year of Disabled' initiatives

I would like to offer a number of clarifications with respect to my comments on the International Year of the Disabled as reported in the Jan. 26 edition of the *Bulletin*. First, the study of library services which was funded last summer by Employment & Immigration Canada was not limited to those for the visually disabled. The final report of the project on Library Services for the Disabled at the University of Toronto is available in my office for anyone who is interested. Second, the "Access U of T" was not formed by SAC or the coordinator of services for the disabled. Rather it is a recognized campus club composed of students, staff and faculty, both disabled and non-disabled, who created their own organization. Third,

the University has applied for federal funding for four projects concerning services for the disabled, one of which would involve hiring disabled students to revise the accessibility handbook. No word has been received on whether the application will be approved. Finally, University application forms do not contain notices to help identify disabled applicants. Rather postcards will be included in the supplementary application package, for the student to mail directly to the coordinator of services for the disabled if they wish to make themselves known on a confidential basis.

William E. Alexander
Vice-President
Personnel & Student Affairs

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Silcox report prolongs 'petty vendetta'

The Silcox Report on the future of the Department of Urban & Regional Planning (*Bulletin*, Jan. 26) is a foray by one of the sides in the sad war of mutual contempt that has long existed between planning and certain of its cognate disciplines in this University — contempt for the supposed misuse of social science by the planners, and contempt for the alleged inability of the social scientists to contribute effectively to urban theory and practice. Over the years, this largely covert exchange of hostilities has effectively crippled the vigorous exploration of the urban question in Canada's leading metropolis. It is high time that this exchange was brought to an end. It is indeed tragic that Professor Silcox, far from bringing this about, has, by publicly pronouncing his opponents to be disreputable, merely prolonged a petty and unnecessary vendetta.

The planning discipline, its substantive mandate, knowledge base and efficacy are as volatile as the cities for which it has responsibility, a fact which requires fluidity in the definition of its conceptual territory. Given the disciplinary alliances and procedures of the Silcox committee, they have adopted the unfortunate — if administratively tidy — myth that planning is social science and must be judged accordingly. How are we to explain his decision not to seek the views of distinguished external scholars from my discipline? The answer surely lies in his response to the anger of our student body last Friday that *all* Canadian planning schools were weak, and that no program in North America was a satisfactory model.

His very conviction shows, in these times of assertiveness from the traditional disciplines, the impunity with which it is possible to rationalize the nemesis of the little fish in this University, so much so that he can — God forbid — play havoc even with the laws of the graduates school. Does Professor Silcox actually believe that the school, or we, could seriously contemplate the teaching of *report writing* and *oral presentation* to graduate students? Is he aware of the restrictions against involving practitioners in

graduate programs, or against the indulgence in private practice by full-time professors?

So confident is he that he has openly admitted, in defiance of all principles of scholarly explanation, that his review is but a "snapshot": a tourist's picture, in effect, of a depleted department, leaderless and awash in the SGS. He must know that, against all our wishes, our curriculum and teaching load were actually halved by imposition a couple of years ago, but he does not say so. Nor has he chosen to expose the events behind the external disruption of the whole MSc (Pl) program and its objectives, a disruption from which we are only now beginning to recover.

A collection of opinions from rival colleagues and a few hand-picked practitioners is not a review. Only historical and contemporary facts and explanations, discerned by objective scholars from the case discipline, can form the material of a review. All were disregarded in an unseemly haste to perform the *coup de grace* and divide what remain of the spoils. Why else were our favourable ACAP and PhD reviews ignored, or the solid comparative statistics on student quality and performance cast aside? As for research, the internationally acclaimed work of Professors Blumenfeld, Scott and Roweis, together with that of other colleagues, cannot be peremptorily dismissed even if, or especially if, it unsettles the exponents of virtuous theory and practice.

Urban planning is not a social science and it is certainly not geography, as the uninitiated would have us believe; a glance at the location of any successful planning school on this continent is sufficient proof. We are presenting the University with a constructive plan for our future that can be implemented without adding to our shrunken budget, one that needs to be discussed openly. As a prelude to this discussion, we must expose the Silcox Report for what it is.

Alan Waterhouse
Department of Urban & Regional Planning

PhD Orals

Since it is sometimes necessary to change the date or time of an oral examination, please confirm the information given in these listings with the PhD oral office, telephone 978-5258.

Wednesday, February 18

Janet F. Fletcher, Department of Educational Theory, "Spatial Representation in Blind Schoolchildren." Prof. A. Keeton. Room 111, 63 St. George St., 2 p.m.

Friday, February 20

Giuliana Giovanna Colalillo, Department of Educational Theory, "Value Structures within Italian Immigrant Families: Continuity or Conflict?" Prof. K. Henderson. Room 111, 63 St. George St., 10 a.m.

Tuesday, February 24

George Eyang Ogar, Department of Forestry, "Effects of Spacing and NK Fertilizers on Dry Matter Accumulation and Nutrient Contents of Two-year-old *P. x euramericana* cv. I-45/51 and cv. Robusta DN17." Prof. M. Hubbes. Room 309, 63 St. George St., 10 a.m.

Mustafa Seckin, Department of Civil Engineering, "Hysteretic Behaviour of Cast-in-Place Exterior Beam Column Sub-Assemblies." Prof. S.M. Uzumeri. Room 307, 63 St. George St., 11 a.m.

Friday, February 27

Brad Inwood, Department of Classical Studies, "Impulse and Human Nature in Stoic Ethics." Prof. J.M. Rist. Room 111, 63 St. George St., 10 a.m.

Susan Cody, Department of English, "Henry James and James Joyce." Prof. C.R. Blake. Room 111, 63 St. George St., 2 p.m.

Roland Lincoln Kesler, Department of English, "Theories of Language and Art in the Middle Comedies of Ben Jonson." Prof. R.W. Van Fossen. Room 309, 63 St. George St., 4 p.m.

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Vice-President — Business Affairs

The President has initiated a search for a person to become Vice-President — Business Affairs in succession to A.R. Rankin.

The Business Affairs portfolio includes finance and accounting, investments, physical plant, administrative services and business information systems. This senior position affords an opportunity to exercise significant influence on the future of the University through the

effective provision of Business Services in support of the teaching, research and public service objectives of the University.

Persons interested in this opportunity or who know persons who may be interested are invited to contact the Director of Personnel, R.B. Brown. Public advertising of this position will be initiated shortly.

Magocsi plans Ukrainian catalogue

Professor Paul R. Magocsi, Chair of Ukrainian Studies, has announced plans to publish a catalogue which will survey all Ukrainian holdings within the University's library system. The catalogue will be the first publication of its kind to list a specific subject area at U of T.

It will include publications and articles in all languages that deal with Ukrainian culture, history, literature, politics, law, geography, arts, ethnographics, bibliographies and language.

Prof. Magocsi, who teaches Ukrainian studies and is cross-appointed to the Departments of History and Political Economy, said agreement on the project has been reached between the Ukrainian chair and the University's chief librarian, R.H. Blackburn, and other library departments within U of T.

The Ukrainian catalogue project also


includes a board of advisers of Ukrainian and Slavicspecialists from the faculty and the library system.



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Mary Martin
Convocation Office, Trinity College
Elizabeth Wilson
Information Services

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